

AMERICAN CINEMATOGRAPHER

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Cinematographers

Harrison Photos Eagles

Small Lamps Being
Used
STULL

Parkers Tour Mexico
Photographs Fish Fight
Commercials Today
HERBERT

Dramatizing Towze
THOMPSON

Wether Hubbard Adds
Sound and Color

Some Recent Films
BLAISDELL

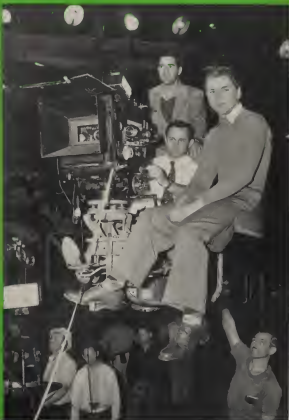
Treatment of Lenses
CARTWRIGHT

Littles Open to Crowd

Kodachrome's
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The Front Cover

Leo Toner, A.S.C., sets story a set on Foxworth's "Henry Aldrich" picture, with Guy Bennett, operative cameraman, just below him. Jackie Cooper from his perch as the boy seen through the camera sees them. The tape that runs from the camera to the point of focus has just been dropped. The still was photographed by Makoto Bullock.



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New A. S. C. Officers

During the last month members of the Society of American Cinematographers have filed voted places on the Board of Governors due to statutory expiration. The new board has elected the following officers:

President, John Arnold
First Vice President, Ray Tate
Second Vice President, Ted Tetzlaff
Third Vice President, Joseph Valentine
Secretary-Treasurer, Al Gilks

At the assembling of the new board former President Victor Milner, who had just been elected to the board, after careful reflection decided not to accept due to pressure of work the coming year. When his place had been filed by the so-

lection of Arthur Edson (pictured) stood as follows:

John Arnold	Ford W. Jackman
Charles Clarke	Ray Tate
Robert De Graze	Charles B. Long, Jr.
Arthur Edson	Hal Mohr
George J. Fisher	Charles Busch
Marion E. Gerstad	Ted Tetzlaff
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Second Vice President Ted Tetzlaff



Secretary-Treasurer Al Gilks



Third Vice President Joseph Valentine



Ed Harrison Watches Birds Grow Up



Condor shot by Ed N. Harrison, cameraman and photographer, during the photographic expedition to the South Coast of the California Coast, in the mountains of the Sierra Nevada.

ED N. HARRISON of Encinitas, Cal., is compiling a rare library of bird films—a library wherein birds are hatched and grow to maturity on the screen right before your eyes. Heretofore the work has been in the realm of the 16mm. On his last expedition, however, he has taken to himself a 35mm. Eysen. It may be mentioned, too, there are a couple of Leicas and a 4 by 5 Graflex.

In the way of lenses and general equipment the young naturalist approaches what may be truly described a photographer's dream. As a matter of fact, one of Bell & Howell's men recently remarked

when mention was made of the Harrison set-up that it contains about everything Bell & Howell carries in the 16mm. line—at least it does so far as this B&H salesman knows.

It was ten years ago when Ed Harrison began his study of birds. In four years he acquired a lot of information. All through that period, however, the photographic bug was gnawing. The bite became beyond endurance, and he fell. For six years now he has taken pictures from all conceivable places.

None of these places has been any more striking than his hide-outs, his birds, from which he

shoots right into the nests of everything that takes to its wings. He has photographed birds from hummingbirds to condors. He has photographed in motion pictures eagles and condors feeding their young, and that is something very few if any have done before him.

Making Serious Study

He has climbed to the top of eucalyptus trees and photographed nests of birds in other trees twenty to a hundred feet away—when the wind didn't blow too hard. But even when the wind just gently sways the trees it is a weird picture.

It is a serious study of birds this young man is making and intends to keep on making. It really is a life study, and it is hardly likely any other man of his comparative youth has gone so far in the combined study of birds and photography. Which means he has made

Some of the Harrison photo equipment. Left: lens case, 12 1/2-inch lens, 6-inch (with 1 1/2-inch 2-inch, and 4-inch), and 6-inch camera, also Kodak on 161 camera adapter for the 12 1/2-inch lens in the movie camera. Center: flash gun with 12 1/2-inch adaptable in lens, over 100 ft. in range. Right: two Weston cameras, condenser and Alcon lens, also, condenser, Alcon lens, also, 100 ft. in range, also two 161, two Leica cases.





Portrait of Ed N. Harrison.

over the state of California and throughout most of the United States. It is a very beneficial bird, as it feeds almost exclusively on rodents.

Eagles Mate for Life

Eagles mate for life, and the pair occupies a large section of territory. They hold for themselves and keep all other eagles out. Each pair builds several nests and may use any one of them for nesting. They nest in trees and on inaccessible cliffs. The one photographed by Mr. Harrison was most difficult to reach.

"About one and a half hours were required to reach the nest," he said. "These birds are very alert, and the slightest movement scares them away. The bird was 100 feet from the nest across a canyon. Yet it was not possible to change a lens when either adult was on the nest. I am satisfied the golden eagle is the hardest bird of all to photograph."

Mr. Harrison has a film on the California condor, the largest of the vultures. These birds are fast becoming extinct. It is estimated by reliable authorities that there are probably less than fifty of these birds living today. The United States Government highly protects them.

First Flights

The condor lays only one egg, and that once in about three to five years. The young bird is depen-

dent upon the parents for food for at least a year. The birds star rather than fly, and are dependent on air currents for a takeoff. The naturalist caught a young condor preparing for his first flight, caught him standing at the edge of the cliff near his nest, repeatedly testing his wings. Finally he was awaiting the moment when instinct notified him the pressure was right, that it would be safe for him to fly.

They are an easy prey for other animals. They do not kill their own food, but prefer freshly killed meat. They feed on dead sheep, deer and other animals. They nest in caves in the cliffs.

Mr. Harrison has made photographic studies from the eggs in the nest, the care and feeding of the young till they are ready to leave the nest, and shows the first flights of the young of

The barn owl
The hooped owl
The red-bellied hawk
The cooper's hawk
The golden eagle
The bald eagle
The great blue heron
The California condor

and numerous small birds, including the least tern.

Of movie cameras Mr. Harrison totes a No. 141 and a T9DA, both 16mm, and a 35mm Eyemo. The lenses for these include a 12 $\frac{1}{2}$ -inch, which is adaptable to the Leica; 2 six-inch lenses, one 4.5



The Harrison blood collecting type camera.

and one 3.5, 4-inch, 3 $\frac{3}{4}$ -inch, 2 two-inch and 2 one-inch. Also there is a wide-angle and 35mm.

Of still cameras there are two Leicas with a four-inch telephoto and a Graflex 4 by 5.

For the past month Mr. Harrison has been on an expedition to Cape San Lucas, Isabel Island and the Mexican coast aboard the 96-foot schooner Kinkajou, owned by J. R. Pemberton, Off Umpire of California, a famous naturalist and photographer.

EASTMAN HAS ENLARGER FOR MINICAMERA USER

UNIQUE in design, created specifically for the existing miniature camera user who lacks a permanent darkroom, or who travels—a highly compact, precision-made Kodak portable miniature enlarger is announced by Eastman Kodak.

First enlarger to embody the idea of miniature camera convenience through compact size, this enlarger dismantles readily and packs in a specially styled suitcase luggage type case only 12 $\frac{1}{2}$ by 11 $\frac{1}{2}$ by 4 $\frac{1}{2}$ inches. It can be unpacked and set up ready for use in a few minutes—in any home bathroom, kitchen, hotel room, tourist camp cottage, or other improved darkroom.

Despite its compactness, the portable enlarger is an instrument of high performance, suited for exacting work. Enlargements from two-and-one-half to nine diameters may be projected as the baseboard, and still greater enlargements

are obtained by projection to the floor or to a wall. The enlarger head may be rotated 90 degrees to right or left for projection on to a vertical surface. A scale graduated in degrees indicates the angle of the vertical.

High efficiency is obtained through the use of a No. 112 36-watt, 115-volt Mazda Photo Enlarger Lamp, in conjunction with a triple-lens condensing system. This combination of diffuse and condenser-directed illumination is generally conceded to be best for use with miniature negatives—providing adequate contrast yet retreating negative grain and minute surface scratches.

These rapid projection lenses are available for the portable enlarger—including the Kodak Projection Kitar 1.4.5, 2 inch, which equips this instrument for true precision color separation work from Kodachrome transparencies.

How Small Lamps Are Being Used on Major Sets

By WILLIAM STULL,
A.S.C.

"GIVE us smaller, less carbonaceous lights!" For years cinematographers have been asking the designers of lighting equipment to give them their lighting tools in smaller, more efficient packages. A glance through the files of *The American Cinematographer's* back issues shows how consistently this thought has occupied the minds of the cinema profession's leaders.

As early as 1924, Victor Milner, A.S.C., was the writer of an article forecasting the ultimate use of miniature lamps, of far smaller bulk than anything then imagined for studio cinematography, and the use of lighting levels more closely approaching the standards of normal room illumination.

In 1934 Oliver Marsh, A.S.C., wrote to point out that although Mazda lighting had become an accomplished fact, much could still be done to increase the lightness and efficiency of studio lighting units and that such a development would prove a practical, dollar-and-cents asset in saving time and trouble in lighting radio sets.

Today we have those smaller, more efficient lamps. It may be merely a coincidence, but it is remarkable that the first of the modern, French-made spotlights which made possible smaller units and the use of smaller globes, appeared a little more than a year after the publication of Marsh's article.

This development, together with the use of faster and successively faster film, has revolutionized lighting and lighting-equipment design in the space of the short years.

Factor Film Helped

This naturally brings the question, Now that these lamps are a fact, what

is being done with them? Let the answer come from the men who are using them.

Joseph Valentine, A.S.C., points out, "We've always needed smaller lamps, like the 100 and 750 watt Baby Solarspots and the new Dinky Inkons. But in fairness all around, it must be admitted that until quite recently, we couldn't have used them to full advantage if we had had them. Today's smaller, more efficient lamps owe much of their value to the fast films we use today."

When Marsh wrote his article in 1924, the fastest film he had was Eastman's Super-Sensitive. From that we have gone to Super-X and now to Plus-X and Super-XX. We've gone from Mazda-light speeds of Weston 12 or less to Weston 90, 44 and better. Without these advances in film sensitivity, the fastest of 100 and 750 watt Baby Spots would be too small for any but occasional use, and the little 150-watt globes of the diskors would be worthless.

Bear in mind that as film speeds have increased the size of our light sources has decreased. Where six years ago the standard lamp was an inefficient incandescent spotlight with a 2000-watt or even a 5000-watt globe, today the standard unit is a French-made Solarspot or Kenlight with only a 1000-watt globe, while Baby Kenlights, with the new 750-watt globes, carry the main burden of key lighting.

Lighting Methods Changed

"At the same time, lighting methods have changed incredibly. Six years ago most of us began with an overall spread of flat foundation-light, with the highlights and modeling lighting built up from this. Today almost everyone employs the so-called precision lighting method, in which virtually the entire

scene is lit with spotlights and the old floodlighting units are vanishing. Today we not only want smaller lamps; we need them, and of course we are using them."

At Paramount Camera Executive Ray Hunter strikes the same note. "These smaller lamps, and especially the new diskors," he says, "are definitely a new and valuable note in motion picture lighting. In spite of their small size, they produce a beam of sufficient power to be of real photographic value when used with today's high-speed films."

"And because of their small size they are tremendously useful in cramped spaces where no larger lamps could be placed. But this is not by any means their only use. In tests we have made at Paramount we have shown it is entirely possible to light a four-armed set entirely with diskors."

"Of course, this is not likely to become very common in actual production—at least for some time—but it shows a definite trend. And it points the way to much better lighting when cinematographers make backgrounds or actual scenes so practical locations, as Victor Milner did last year in several of New York's leading hotels, night-clubs and the like."

"Our forthcoming production, 'A Night at Earl Carroll's,' should give these smaller lamps their first real workout in such service, for a great deal of the lighting of the scenes made actually in Earl Carroll's club will have to be done with diskors and with the 500-watt and 750 watt Babies."

Several Types Available

At present, there are several varieties of these tiny lamps available. As Charles Eisher, A.S.C., points out: "The original design was evolved by the Warner Brothers' Studio, and that studio has built its own lamps of the 'beam spot' type. The first commercially available lamp of this class was Berdwell-McAllister's famous Dinky Inkoy."

"In addition, several other manufacturers have marketed similar small spotlights for studio and amateur use, and I understand that at least one of these types is now available in the motion picture industry through a recognized studio lighting firm."

One of the most obvious uses of these small spotlights is to take advantage of their small size, and conceal them actually in the set. As Karl Freund, A.S.C., puts it, "The diskors can be used in ways no other lamp ever could be. You can use them in cramped spaces where no larger lamp would go. You can hide them behind a pillar that would be too slim to conceal even a baby spotlight."

"You can hang them on a set wall with vacuum cups, avoiding the delay and difficulty of nailing a 'barbie' to the wall, using an extension bracket, or suspending the lamp by ropes from the catwalk. This saves time and trouble, and in addition it is usually possible to place these little lamps more accurately than way

than would be possible under similar conditions using larger sets, so that you get your results both quicker and better."

Theodor Sparckel, A.S.C., is another who has found these point-size lamps invaluable when working in crowded quarters. "But," he remarks, "it is necessary to take the disks seriously if you are to get the full benefit from using it. I have made tests that showed it is possible to light a moderate-sized set entirely with disks."

"Therefore it is possible to set almost entirely on them when you work in small sets where there is little room. For instance, good lighting has always been something of a problem in sets representing the interior of a car, takeout or airplane, simply because there is so little room. But if you do most of your lighting in such shots with disks, it's a different story."

Hide Disks in Set

Ted Tetzlaff, A.S.C., points out that these lamps are so compact that they can very easily be concealed within the actual scene. "These disks," he states, "are so small that they can be concealed almost anywhere. A vase of flowers—a pile of books—almost any small prop will hide a disk from the lens. Used this way, they can provide angles of lighting on set and players which could not be provided in any other way."

Valentine tells of another way these lamps are useful, concealed within cover-ings. "They are small enough," he says, "to be hidden right inside the shade of one of the practical lamps in the scene. From that vantage point these beams can be directed any way you want, on the set, or on the players. This opens up a range of effects that naturally couldn't be approached using merely photofloods or projection globes in the practicals."

All of the cinematographers who have used disks pay high tribute to them as a means of providing "eye lights" in close shots. As Ray Jane, A.S.C., expresses it: "The disk is small enough to be placed with unusual accuracy. Its beam is sufficiently powerful to be of photographic value in almost any key of lighting now used for black-and-white. The Fresnel lens minimizes the need for diffusion. This combination makes it very nearly ideal for supplying 'eye light.'"

Selective Lighting

In addition, these lamps can be used handsily for extremely selective lighting when there are two players requiring different types of lighting working together in a two-shot. "Ordinarily," as Charles Rosher, A.S.C., points out, "a cinematographer making a shot like that of a woman in a light costume and a man in a dark suit would realize that the man and his non-reflective blue serge would need rather more light than the woman in her lighter, more reflective outfit."

"To get that he would ordinarily have to do quite a bit of juggling with diffusers, gobos and the like, at a consider-

able cost in time and trouble. Today, a single 'peanut spot,' trained on the man, would get a better result in less time."

Inevitably, several interesting accessories have been developed for use with the disks. In some studios, the disks may be used in the existing long-mount directly over the blimp. In others, new mountings, especially adapted to the disks have been developed.

Mount Disk on Camera

"At Warner Brothers' Studio," reports Rosher, "where Mitchell BNC cameras are used advantage is taken of the fact that the disk weighs only a few ounces over two pounds. A fitting is provided atop the camera's middle-box, and the disk may be used in this position—only a few inches above the lens—without disturbing the balance of the camera."

At the Twentieth Century-Fox Studio, reports Donald B. Clark, A.S.C., a most interesting, goose-neck mount is provided. "This consists," he says, "of a length of flexible tubing identical with that used in goose-neck desk and reading lamps. This highly flexible mount is fitted to use of the m-crods carrying the middle-box."

"With it, the lamp may be quickly bent to any position—besides the lens (on either side), or above or below the objective. Once bent into position, the lamp stays there, and of course pans, tilts and dithers with the camera."

This is perhaps the most flexible lamp-mount yet used in the industry, and it presents an idea which might well be incorporated into the design of floor stands for these handy lamps.

At Universal Valentine uses a relative adaptation of the multi-pointed arm standards familiarly used with Luge lamps, to give similar flexibility to his disk lamps.

It is very interesting to note the influence of individual lighting technique and laboratory conditions upon the acceptance of these ultra-small lamps. As might be expected, they have as yet found their most hearty acceptance among the directors of photographs who habitually use low illumination levels.

Similarly, in some studios where low light-levels are the general practice, there is a continuously increasing number of disks, and they are being used with more frequency, and for new and ever more important purposes. In other studios, where light-levels are generally higher, the disks are coming into use more slowly. However, it is evident that regardless of these individual conditions, the cinematographers who have had an opportunity of trying these useful little lamps almost unanimously favor them, even, in some instances to purchasing them personally.

750-Watt Baby Spot

A closely related development is the change in the industry's appreciation and use of the baby spot light. Until the introduction of the disk, the baby spot light was the smallest and lowest-powered

lamp used, and was employed somewhat sparingly.

Today, with the advent of the more efficient, Fresnel-lensed Baby Raylights and Baby Solergos and the new 750-watt globes that supersede the 500-watt ones so long used in "babies," the baby spot is entering a completely new field of use.

As Valentine expresses it, "With these 750-watt globes, three babies are just what we need for a lot of modern lighting jobs. With today's fast film, the 500-watt baby is just too small for some of the heavier floor lighting jobs, while the 1000-watt junior is just too big. But put a 750-watt into a modern baby and you've got just what the doctor ordered!"

As William Daniels, A.S.C., comments, "It is no wonder that the 750-watt baby is everywhere taking over an increasingly important share of the lighting. In virtually every studio it is becoming the favorite unit for key-lighting. And I find it is useful for an increasing share of set-lighting and modeling, as well."

"The heavy duties of overhead lighting can be left to the 1000-watt juniors and the 150-watt disks are taking over much of the work done by the 500-watt babies. This leaves the 750-watt babies a clear and extremely useful field as our all-around, intermediate lamp."

Better Photography Coming

"So today we can do the bulk of our lighting with three types of spotlights—the 1000-watt Junior, the 750-watt Baby and the 150-watt disk. This makes for increased simplicity in our electrical equipment, problems, and in addition gives us more compact, more efficient equipment and an opportunity to do our lighting more accurately."

"Both the old-line technique of free-lighting and the floodlighting units themselves are disappearing. The whole thing can be summed up in saying that we have better tools with which to work and better methods of using them than we had a few years ago. Better photography more easily and more quickly done, will be the outcome."

When we consider the additional possibilities of the new, non-reflective coated lenses, and the further increases in film sensitivities that seem inevitable, we cannot help wondering what advances the next few years may see in lighting. As Roy Hunter remarks, "We have not yet quite approached the cinematographer's long-cherished goal of being able to light his set with ordinary, room lighting levels of illumination. But the developments of the past few months are bringing us closer to it."

"If things advance during the next ten years as they have during the past decade, we may expect that that goal will be, if not perhaps attained, at least very concretely in view. Even today, with the speed of film and lenses and the efficiency of lighting equipment as sensationally on the increase, that goal is no longer an idle dream, but well within the range of practical achievement."

Fightin' Fish Hold Centre of Stage

DR. ROY GERSTENKORN of Los Angeles has tried his hand on what, to all outward appearances, is deep sea photography. Under the title of "Tropical Ecstasy" he has brought forth in Hoken Kodachrome 100 feet devoted entirely to submersive life. Various kinds of tropical fish people his underwater preserves.

Some of these fish are peaceful, while some are quite the reverse. In fact, they are fierce, battling to the death of one of the two contestants. As one sub-titled aptly describes the battling breed, the Siamese fighting fish, "their viciousness is concealed in rare beauty."

And rarely beautiful they are. The fighting fish are of three colors, blue, green and red. In the country of their nativity, Siam, a thousand persons are engaged in raising them for sporting purposes. Like gamecocks, they are bred to fight—and fight they do.

When three months old they are separated from their fellows and put into an exclusive labyrinth. Their battling days are between the ages of ten months and two years. As in human affairs, there are represented all kinds of skill. Some, of course, like some prizefighters, have a habit of winning, and on these the Oriental splurge their money.

Conspiration

The picture by its titles is divided into sequences. The first sub-title sets forth that "Canest Fish Talk Over a Break." Contact fish is the proper name of the particular dwellers of the deeps, but sure enough the two in the centre of the limelight do get their heads together in conspiratorial fashion even if words are silent.

Then comes "Believers Eat Their Live Prey." This is a brief sequence, but it is of sufficient length to observe the flashlike opening and closing of the

jaws of the larger fish as, with lightninglike speed, he assaults his victim to enter upon his long life.

"Chinese Walking Fish Literally Walk" by scamping their bellies on the sand at the bottom of the sea or whatever may be substituting for the bottom of the sea. They even creep out of the water on the sand, but they do not tarry. Then comes the reference to the Siamese fighting fish and their viciousness and beauty.

We see a parade of the two contenders. One is a bright blue, the other a brilliant red. They green and strut, and for all the world conduct themselves like two prizefighters looking for an opening. The two fish sport a grand dorsal fin, gorgeous in its brilliance. The subtitle even suggests that "Fried Goeth Before a Fall."

Strange Combat

It is one of the strangest combats ever filmed. The only weapon at the command of the fighters is the mouth, and that in the present instance is not a large one. The blue wins, the red going to the bottom a much disheveled creature.

By the way, it is not quite true that all these goings-on are in the deep sea. If you want the lowdown, the truth is that the fish prowled and fought and bled in a small tank, perhaps 7 inches high, 9 inches wide and 3 inches thick. This was dropped into a large tank, decorated with an abundance of vegetation, simulating a submarine garden.

The smaller tank was inverted close to the side nearest the camera. The fish, it may be recalled, were quite small. They ranged in length from three-quarters of an inch to 2½ inches in length, perhaps an average of 1½.

The camera, used by the doctor was his Kantama Special. The objects were magnified by a 2 to 5 diopter lens superimposed over a telephoto 5-inch lens. That gave an average sized fish in length perhaps a quarter of the screen width.

The shooting of the picture has had one unexpected result. Getting curious about these rare fishes, the doctor has secured books about them and is studying fish lore. He even threatens to tell you the Latin names.

At the top is a walking fish who sometimes crawls out where the water is not, but who then turns out until he is again quite under water. Second and third are believers, who eat live prey, and spend 'em up while they're doing it. The fighting fish, one red turning white, while the other is blue, are shown at the bottom of the list.



★ **PLUS X**

EASTMAN

J. E. BRULATOUR, INC.

THE PARKERS



HARRY and Harriette Parker, which to their intimates is the same as saying Mr. and Mrs. Harry Parker, have returned to their hillside home in Los Angeles for a few months before setting forth again. Their last trip was to Mexico City and its environs. They chose to go in their own car, just as they found hundreds or thousands of others doing likewise.

Mr. Parker is a methodical man. For future reference he likes to know what he is doing, where he is going and where he has been—how many miles he has traveled, and also the number of gallons of gasoline he has consumed. Unerringly he is able to recapture the character of the roads he has traveled—mountainous or level, rough or easy on the tank.

For instance, a trip of eight and a half hours for 435 miles and consuming a little over 25 gallons spelled 17 miles a gallon. That meant better than 50 miles an hour over grades and around curves. At other times the mileages were 21 miles, indicating a more level and straight road.

The crossing into Mexico was just before February 1 and into weather that had been the severest in fifty-three years. Until this year the most recent snow was fourteen years ago.

The mileage by days from Los Angeles was as follows: Phoenix, 411 miles; El Paso, 436 miles; Laredo, 644; Mante, 383; Mexico City, 435. That made a total of 2309 miles from Los Angeles, one way. The total mileage for the trip was 5594, showing practically a thousand miles driving in and around Mexico City.

Employed Guide

The Parkers had not proceeded far into Mexico when they decided to take on a guide, which they did in Monterey. They had no reason

to regret this step, as he was practically invaluable to them in many ways. For they had ideas among other things of taking some pictures and they wanted to know all about getting the best ones. They were making it all in Kodachrome this time.

With eleven pieces of baggage the Parkers were practically two hours in passing through customs at Laredo, United States and Mexico. Cameras had to be registered to facilitate bringing them back. The Mexican Auto Club had fixed up auto insurance and checked cards, etc.

About fifty miles south of Monterrey the Parkers passed twenty-five men bearing two coffins. Inquiry brought the information there had been an election in the town two days before.

The highway No. 1 between Laredo and Mexico City has been open only four years. It is a matter of 733 miles, and is becoming exceedingly popular with American tourists. There are three strong reasons why: Rates of exchange, the cold in the north, and the war. Prosperous looking persons are driving fine cars. The Parkers noted that the great majority are passed middle age.

It may be of interest to those contemplating trips to Mexico to learn there is no expense for meals and room for guides. They are included in your price, "because he brought you." Apparently, too, the meals are not advanced because of the action, and those unsuccessful do not get a loss piece.

Coming into Mexico City there is a stretch of eighty-three miles where the curves are reminiscent of the old Ridge Route from Los Angeles toward San Francisco and ranging between 5000 and 8000 feet elevation. In this eighty-three miles are twenty-five forts or garrisons at vantage points.

Market Day in Toluca

A trip was made about fifty miles on a Friday, Market Day, to Toluca, a city of 40,000. It has an altitude of 8761 feet. It is situated in a plateau valley, surrounded by mountains, with lakes and rivers and land as fine as any in the United States. There are many ranches owned by the wealthy and conducted on a big scale. Indians



Mexican gulf

Home of President Carranza at Cuernavaca

Mexico City skyline across, 20,000 persons present May Sunday at 4 pm. (Sharp lens taken at foot on Mexico City on stated time)

A private laundry. A good place to get correct snapshot

TOUR MEXICO

live in the surrounding country and they trek in on Market Day to the location covering several blocks, arrayed in most colorful garb.

Several thousand persons were present on the day the Parkers attended, nine-tenths of them Indians. Perhaps a third of them brought young babies. The people speak their own tongue, and do not dabble with Spanish or Mexican.

Just a note to those who have radios in their car: Mexican broadcasts are mainly of music, and if you like radios you will have a feast.

Riding about the country around Mexico City the tourist passes great cultivated mountain fields fenced in with cactus, which prevents erosion—of the soil, so to speak. The sort of liquid or milk which is taken from the cactus after a couple of days' fermentation becomes the drink called pulque.

About a litre of it a day is said to be beneficial in certain circumstances — 1,0567 United States liquid quarts—given to tuberculosis patients, etc. Many become addicts, however, and consume a gallon or more or less a day, with the result they are in a stupor most of the time. "Denik is a proof of poverty here," remarks Mr. Parker.

Two Miles Up

On the way to Toluca the Parkers drove many miles through a National Parque, the Lions' Desert National Park. The trees were like the giant pines of Northern California. They followed the winding road and finally reached the summit Des Cruces (the crosses). Here the altitude is 3158 meters, or about 10,360 feet. Because of the comparative nearness of the equator—Mexico City is below 20 North Latitude—the temperature was 60 degrees.

Latins are described as crazy drivers at times, but those of Mexico City are the craziest. There is a code of toots, but the American does not seem to grasp it. That is where the guide comes in.

The Parkers were interested in a trip to the Pyramids of the Sun and Moon and others. They are about thirty miles distant over Route 1 north, with an additional distance over a dirt road for a

dozen miles. Mr. Parker quotes his guide as authority for their being built in 640 A. D. by the Toltecs, who came after the Aztecs. Two large pyramids compare in size with the Egyptian. But these Mexican pyramids are made with very small stones. There are thirty-six smaller ones scattered around.

The visit to the Shrine or Church of Guadalupe was most impressive. The lavish gold decorations and stained glass organ gallery were described as amazing, claimed to be the most elaborate in the Western Hemisphere. "Surely we never saw its equal," coincides Mr. Parker. It was surrounded by poverty.

Boys Washed Car

Right here was an incident which may have a message for some other tourist. When the car was parked near the church in order to get a closeup many boys clamored for the job of washing the car. For this they demanded 10 cents Mexican, or 1.69 U. S. Mr. Parker said it would not be necessary to watch it and told the boys no. The guide overruled the owner, however declaring afterwards the boys would scratch the car in retaliation.

When the party returned from the church the boys were found frisking up a job of washing the car, without instructions, and also for the price of 25 Mex. or 4 cents U. S. They made a good job of it, too, added Mr. Parker.

The guide, however, did not prevent the owner from climbing one of the small pyramids that day, with the result because of the altitude that that night he was very much "all in."

The Pan-Pacific Hi-way going south out of Mexico City is marvelous. It will be completed to Nicaragua in about two years, and in four or five years go right into South America.

(To Be Concluded)

Cathedral in Mexico City, known as the American

Cathedral of City of Puebla

Spinning loom in front of cathedral, light view of Puebla

Every Mexican city has a plaza. This is one of the most famous



Commercials as They Were— and as They Are Today

By CHARLES W. HERBERT,
A. S. C.

EARLY motion picture Nickelodeons fested huckster in and of the way, cheap shopping streets. Nice people declined to enter, while many a juvenile was punished for crossing their thresholds.

In many communities the motion picture was considered evil, not respectable—something to be shunned. Theater operators in those days, denied by the schools before their eyes, were unable to visualize the vast power behind the motion picture.

No sooner, however, had the motion picture proved to be practical, than farsighted educators recognized its unlimited potential value waiting to be developed. Educational pictures were made; they were acclaimed a success by those who viewed them; yet many methods of use were tried and failed.

Repeated efforts to push the educational were made with varying success in the resulting product and its exhibition. Most notable examples of achievement in the field were being up by Educational Film, Society for Visual Education, Yale Movement, Ford Motor, Eastern Teaching Film and E. R. P. E.

None of them achieved the continued fulfillment of their original purposes—the main reason being the lack of a central standardized curriculum and method of teaching throughout each and every one of our forty-eight states.

Towering Monuments

A thousand and one educational reels lie in storage vaults today, deteriorating from the process of time—these perfect forms shrunk, their emulsions abraded, the elasticity gone from their base, lie limp jekily exaggerated by the new standard speed for sound, quality overshadowed by new emulsions, there, treatment and processing.

Still they stand towering monuments to former endeavor.

All this time, entertainment pictures met with continued financial success. The scope and quality were advanced by leaps and bounds. This progress had much to do with the failure of the first educational.

Some educational producers met the challenge with bigger and better educational only to be outstripped by the entertainers. Some educationalists found their way into theaters. They were given away to gain prestige for a business or institution. As regular theater programs were lengthened with multiple reel productions, the film-on reels were crowded off the program.

In this respect they shared the fate of silent reels. Science, where considerable in straight, boring scenic shots wrote their own doom. These narrative pictorial reels were often used as house elevators.

When a good box office show was on, with house seats filled and a waiting line outside, the management dipped in a couple of scenes between programs to get rid of the patrons who might stay to see the feature a second time.

Robert Bruce picked up the trampled colloid of the discarded scenic, in-

proved the quality, and resented it out with a specially prepared emulsion score furnished with each reel, bringing them back to favor.

Educational Pictures gave up the original program and turned its efforts toward comedies in a rush to get into the money.

Newspapers—March of Time

The newspapers started small, yet kept even pace with the progress of features. Originally edited and directed in hand out newspaper men, the first objective of the newspaper was to be first. Competition between the various newspapers uncovered this last for speed. Later on the quality was upped to a plane parallel with features. The news can rightfully take credit for putting news on the screen.

Within the vaults of the five major newspapers today is stored the greatest known record of a quarter of a century of history of the world. Through the newspapers covered the faithful dramatic presentation of the cause, events and possible consequences as portrayed by the revolutionary treatment given it by the March of Time.

Science graduated into travelogues with human interest and action. From time to time glorified travelogues (documentaries) came in the form, raising Broadway runs. The most outstanding of these was *Globe*.

The first feature length documentary film member *Martin Johnson's* aerial film, *Chong, Nankoo of the North, Moons of the South Seas, Man of Aran, Land of Promise*. More recent are *The Plow that Breaks the Plains, The River and The Fight for Life*.

Then there were commercial reels. It was not long before every city of importance boasted a small company equipped to produce commercial reels. Sometimes a local free lance cameraman, representative of one of the major news companies, conducted this business in addition to news coverage.

Laboratories were small and inefficient. The resulting products suffered from poor quality. The uncertain reel type developing outfits were used by some; others built home-made rank type tanks.

Some Spots Were Easy

During the early twenties, promotional commercials were at their height. There were many ways and means (some legitimate and some shady) to sell a commercial job to a city. Many used for publicizing promoters were small towns suffering from lack of industrial activity, yet stung in glorious traditions and favorable climate.

High pressure men with convincing letterheads and calling cards would find the towns. They quietly haggled with bankers, mayors, leading citizens, expressing wonderment at the fact that the fiction picture industry had not discovered this great storehouse of talent and ideal locations.

Always some town beauty was found and her praises sung throughout the

Topnotcher

P. S.—Your magazine is the topnotcher in its field, and I hope it keeps on improving as time goes forward. By all means, continue to give the young 'uns a break.

SID FRIEND

New York, March 28 1930

community by the promoters. She was used to decorate various scenes in the reel and the promoters let it be known that in a short time she was sure to be picked up by one of the important feature companies.

Some commercials were made possible by gaining the favor of the group who held the purse strings of the local government. Their desire to see themselves on the screen influenced them to give for a reel of the town. Others were made possible through the desire of all of the principal merchants in town to see themselves and their own business recorded in celluloid.

One of the fastest of these plans was executed in Cody, Wyoming, where it was proposed to make first a complete film of the town and region which could be used to raise the capital for additional films. The promoters moved in from fresh troups in the New York film center.

Then declared that Cody surroundings with all of its Buffalo Bill atmosphere and historic claims was rightfully the one and only place where real Westerns should be made. None deserved the parts of actors more than these pioneers still living in the region as they had actually helped to extend our frontiers—they said.

Work Without Pay

A movie club was formed. Each member who paid fifty dollars was entitled to act in future productions and the privilege of acting in this production without charge for his services. The plot was outlined, the cast selected and the cast for their first reel Western.

A local newspaper man with a then popular western Universal camera was a resident of Cody and was equipped to handle the technical work in connection with the project. The film was made, cut, printed and brought back to Cody for a gala premiere before those who had supported it with their money and acting services.

The promoter left all in high hopes as he boarded a train for New York, where he proposed to sell the film as a profit and return with additional financial backing. The film was never shown and he never returned.

Paul Beach was the scene of another fast job. A well appearing man with a camera and a convincing line of talk arrived at the height of the winter season. He contracted with the principal theater to run a one reel home town movie which would be composed of city views interspersed with flashes of the merchants and their particular wares.

So enthusiastically did the merchants respond to this plan that more than five thousand feet of space was sold despite the fact that the theater had agreed to run only one reel in between its regular program. This promoter was just one jump ahead of the sheriff as he embarked for Cuba.

Another interesting commercial motion

picture angle was worked by a promoter who represented himself as a director from Hollywood. He appeared on the stage in the principal theater and after a brief talk on how movies are made, he called for volunteers from the audience to come up for a scene test.

They were placed in front of the camera, lights were set, and they were given an emotional bit of acting to do. Some were required to read a letter announcing an inheritance, others a telegram bringing bad news.

And Some Were Good

A limited group were put through their paces, then the camera and lights were turned on the entire audience for a quick, sweeping panorama. Next week the resultant film was projected in a full house. It was a reel, and gained happy acclaim.

During this period, many of the early, small commercial business houses closed doors, others opened up and some few grew and extended into large successful organizations. Some of these large commercial film producers have served one client constantly for fifteen years, making all of his films from early black and white to the last word in color, sound reels today.

Some large industrial organizations such as Ford Motor, International Harvester, Caterpillar Tractor and Bell Telephone had their own production units. Film libraries of the large industries, societies, institutions, etc., contain documented records of their progress just as the newspaper libraries store a pictorial record of world progress—but over a longer period of time.

Early industrial commercials were merely a jekily arranged series of their buildings, machines and employees. From this they graduated to smooth entering sequences that held interest, providing the industry itself was adaptable to convincing dramatization.

Some of the better industrials were

All Grist That Comes to Mill When Camera Turns

Allyn Joslyn made an ineptness and growing debt as a stunt man in a Universal picture recently and came off with a variety of bruises.

Making his entrance in an automobile for a scene in the Bing Crosby-Gloria Jean picture, "If I Had My Way," at Universal, Joslyn was supposed to step mechanically from the vehicle.

Instead, the car came too fast and in making an abrupt stop the front door flew open, tossed Joslyn on the ground and dragged him some fifteen feet.

Joslyn had practice of mind enough to pick himself up and shout imprecations at the driver. The camera was grinding, and while Joslyn was treated for his injuries, producer-director David Butler changed the script to take advantage of the unscripted scene he had caught on film.

even accepted by the theater without charge to the producers, the most outstanding of which was a stupor of motion which carried the audience down the assembly line in an automobile factory.

Today Regular Film

Today the commercial has graduated into a film with a plot using experienced actors on authentic sets, a capable director and technical staff for turning out a Hollywood type picture. Many of these films are used for sales promotion, training audiences through practical sales problems solved before their eyes with up to the minute technique.

By far the most outstanding achievement in commercials has been accomplished by March of Time with its newly established commercial department. Behind the scenes, March of Time Commercial started a record of skyrocketing achievement long up by a group of men who entered an old field with new ideas.

From their first inception, the Time idea has grown a great staff of news, feature and research writers whose pens have conceived and built Time, Fortune, Architectural Forum, Life, Radio's March of Time, the screen March of Time, Time Commercial Reels and now Time's full length feature, The Summaries We Watch.

The Time merger, the Fortune and Life ties, the March of Time film and script library with a corps of writers and researchers is the heritage to which the commercial department has fallen heir. There is scarcely a government, social, religious, financial, merchandising or industrial problem which cannot be readily searched and tackled and mastered by skilled specialists.

These commercials break away from the old cut and dried style of glorifying the product or project with handshaken advertising technique.

Tobacco is the theme of a Chesterfield film recently completed by March of Time's commercial department. Not only does the film show tobacco from seed to cigarette, it tells a factual story of the populous center around Durham, N. C., the influence it has on the structural life of this increasingly important city.

The important history of the start of the industry is re-created in March of Time style. The close relation of tobacco revenues to the Federal Government is emphasized. The film's authentic scenes of the daily life of a typical tobacco farmer's family erases the stigma unjustly applied to tobacco farmers by Tobacco Road.

From Lantern to Lantern

These farmers are industrious, law abiding, god-fearing people whose whole lives have been devoted to the raising of tobacco. During most of the year they start the day's work by lantern light and end it the same way. Their one hope is to raise the finest grade leaves

(Continued on Page 22)

Dramatizing the Family Dog

By Harold Lincoln Thompson, M.D.

IF you want to make a picture with a different appeal, forget the human subjects and train your camera on the family dog. In every audience near people out of ten are dog-lovers; the truth, as a rule, only pretends not to be.

All of us remember the popularity of two of the greatest movie stars that ever lived—Strongheart and Rex-Ten-Ten. Both were dogs. Year after year their pictures drew audiences larger than those of most of the human stars. Even today, Asta, the wire-haired terrier, masterfully steals the show from William Powell and Myrna Loy.

Of course, proof as we are of our own pets, it would be too much to expect them to rival these professional canines. Moreover, it would be too much to expect their masters to turn out *Idem*, or *Idem*, versions of Strongheart successes.

But the family dog very easily can be starred in a home movie ball around his own personality and his daily life. What's more, if you're an average movie-maker, you probably have an abundance of material which needs only editing and tiling to make a charming dog story for your audiences.

Such, at least, were the facts in our case. For purposes of record, it might as well be admitted that the Thompson household revolves around a whimsical little muttie named Towse Tyke. Ever since Towse joined the clan—eight years ago—he's been making newspaper appearances before our Cine-Kodak.

"Candid Camera" Show

Vary few of these shots were deliberately planned. More often one of us would notice the pup doing something cute, and tell the other to—"Get the camera quick!" At other times, Towse would simply be the handiest subject when five, ten or fifteen feet of unexposed film remained on a roll, and just couldn't be wasted.

On vacations Towse sometimes wandered into shots that were intended to feature only scenery. In between, Miss Thompson (dog-lover No. 1) would issue strict orders for her favorite cameraman to get across new shots of Towse.

At any rate, our supply of canine stock shots steadily increased. Partly as a matter of convenience in cutting, and partly because we, at least, enjoyed see-

ing our Towse on the screen, these scenes were assembled in more or less chronological order on a separate reel. After several years of this haphazard shoving, it's not surprising that we found ourselves with more than 400 feet of these canine candid shots.

So things stood until the fall of 1935. Then one evening, turning files with one pet-loving friend, the Gilles de Treverasses, and discussing the forthcoming content of the Los Angeles Cine Club, to which we both belong, that reel of dog scenes somehow got on the projector.

Take Stock of Stock Shots

Gilles lifted it. He said it had inherent story possibilities, despite its random origin; and as Gilles is one of the bright lights of Walt Disney's story department, we thought he ought to know.

Remembering the film later, we took stock of what we had. Here was a fine beginning—primarily candid scenes of Towse's arrival at our house. He came as a surprise to Mrs. Thompson as her birthday (and I find I have enjoyed this gift more than any other present I ever gave my wife!) I had put Towse in a basket, on the doorstep, and rang the doorbell. Hidden in some convenient shrubbery, I was in position to get a fine shot of her reaction as she opened the door and discovered the puppy.

Of course, more carefully posed close-ups of the lady and her new pet followed. So, too, did some shots of his first meal in his new home.

Then there were plenty of scattered shots of his puppyhood—a cute scene of his worrying one of Mrs. Thompson's shoes, remarkable because her foot was inside the shoe at the time! Another of his bathing on a huge mountain pasture almost as big as the pup himself.

Another of his attempts to play with an older and more sedate muttie, who could naturally be introduced, via title, as "Uncle Sandy," and several excellent scenes, both longshots and closeups, of visits from a canine's Debernauzian neighbors (the "Finchers of Debernauz").

Next, to our delight, we realized that there was a complete five-foot sequence detailing Towse's participation on a trip to the beach. Adding to the travel motif were scenes showing Towse in the family car, receiving permission from a

Ranger to pass through Yosemite National Park.

This gave a natural opportunity to utilize some of the scenic shots through which Towse had romped, and of course the all too brief scenes showing his final joyous encounter, high in the California Sierras, with a snowbird.

That suggested, too, that the shots showing Towse investigating the canary's cage, excitedly searching for field-mice in the backyard shrubbery, and trying to catch the fish in the gold-fish-pond, and finally falling in, could be grouped and titled that Towse, as a city dog, had to learn his healing and fishing in the backyard!

In the same way the shots of Towse resignedly enduring his bath in the laundry tub suggested a title saving that Saturday meant bathing to him.

Showing Off Tricks

Every dog owner tries, with more or less success, to teach his pet tricks. If he has a camera, he also tries—usually with still less success—in get pictures of the dog doing the tricks. We were no exceptions. We had fine shots of Towse saluting and shaking hands, but the scenes where he was told to roll over weren't so successful. Towse was too dignified to cooperate without protest.

Well, that suggested another title—one in which Towse and his third saluting and shaking hands, but he didn't care for rolling over.

Viewed that way, we discovered we had a surprisingly representative series of scenes of Towse's customs and characteristics, which might easily be the title of the picture "Towse Tyke, His Life and Letters (A, B, C)." What more did we need?

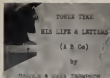
By this time we realized we had missed two of the little fellow's everyday actions. First, his early morning chore of scampering down the driveway to fetch the morning paper. Second, getting into his little sweater and curling up on his special cushion at bedtime.

Shot Two New Sequences

To complete the picture is a way that would really characterize our dog would only require shooting these two brief sequences and, of course, the necessary titles. Knowing how temperamental even the most faithful pets can be when asked to do things before the camera, we approached these "added scenes" with apprehension—and an extra supply of film.

But Towse proved himself a real trouper. We shot the morning paper sequence late one Sunday morning, when he had already done his chore once. But—meaning to stress that this was a canine—Towse entered enthusiastically to the point of the thing. Without a single rehearsal, he played his part perfectly, running down a, picking up the paper, and scampering back to deliver it into his mistress's hands. One take—and that was it. The box.

(Coincidentally, he did the job for



better than when no camera was around, for he didn't stop to explore the laws and read "his morning paper."

The going to bed sequence was filmed just as easily. Towns knew it wasn't right to go to bed in the middle of the forenoon—especially with a spotlight making the scene still lighter. But he played this scene for all he was worth—bopped right into bed with his head on his front paw, and, for the final closeup, his drowsy eyes closed and he apparently went to sleep.

Towns Talks in Talks

For this type of scene, by the way, I can heartily recommend using the fastest possible film, like Super XX or Triple-S Pan, so as to avoid using the 1/2-frame speed which usually accelerated our scenes, and so that you can use a minimum of lighting units. The strong glare of photographic lights seems to

bother most animals, making them nervous and best inclined to cooperate.

That completed our film (I say, our film very modestly, for Mrs. Thompson and I shared the responsibilities of camera-work, editing and titling). The titles almost wrote themselves, once the contrasts was discovered, for the film was so completely told from the dog's point of view that it seemed only logical to let them represent Towns's opinions.

When Gilles de Tremeudan saw a preview of the completed film, he insisted that it be entered in the club contest. With good sponsorship he said that it was far better than his own entry. Well, Gilles deserves credit—and a sincere "Thank you" from the dog-loving Thompsons—for his part in trying us on to complete a prize-winning picture which we're proud to show our friends. You see, Gilles' own film was first in the club contest.

EASTMAN TOPS WORLD'S FAIR SHOWING OF 1939

NEARLY four million people visited the Eastman Kodak Building at the World's Fair in 1939, thus placing this exhibit as among the first in total attendance. It was one of the outstanding hits of the exposition.

However, not content to stand on this record, the Kodak Company has awarded contracts for extensive improvements and changes for the 1940 show. This includes a complete new front and an enlarged entrance foyer to the Great Hall of Color. The latter is designed not only to permit a more efficient direction of crowds, but for the comfort of visitors. Featured again by Kodak will be its Cavalcade of Color in the majestic, semi-circular Hall of Color, where as

enormous screens, the largest in the world—one hundred eighty-seven feet long and twenty-two feet high—extend along the inner circumference.

On this screen, in panoramic views and in groups of pictures, will be projected by a battery of eleven huge twin projectors, an even greater display of color photography than in 1939, and this was praised by photographic critics and the public alike as the finest ever presented.

In 1939, the Kodak style show featuring attractive models dressed in gowns, frocks, suits, sport ensembles, and other products manufactured from Eastman acetate materials, proved to be much more popular and attracted more attention from both men and women than was expected. For 1940 a special salon will be constructed in the Hall of Light for the continuous and more elaborate presentation of the parade of feminine individuality and the latest in women's styles.

During fashion show intermissions Eastman experts will show some rather startling tricks in photography, along with other thrilling demonstrations.

Another new attraction for this year is the addition of two model living rooms in one of which will be projected full color home movies and in the other "still" pictures in full, natural color—such as can be taken by any amateur and shown in his own home.

The photographic galleries, which proved to be a breathtaking paradise for 1939 fair visitors, is undergoing many changes, with new and attractive sets to serve as backgrounds for picture taking.

These changes and improvements, along with many minor ones, should again place Kodak among the headlines at the 1940 World's Fair.

Cortez/Rehn

STANLEY CORTAZ, A.S.C., and Mildred Rehn were married April 19. They took a plane to Las Vegas in the afternoon and returned that night. It developed after the fact the couple had been secretly married eighteen months ago, but had concluded that owing to possible complications a ceremony in the open should be held. The opportunity was presented when Mr. Cortez concluded his work on "No Earl" at Universal.

Mrs. Cortez is a Yugoslav actress, having played, in other than her native land, in Poland, Russia, England and Egypt. The acquaintance began six years ago.

The beautiful good woman of a sort of French-ness being attached to the deathly work

Father Hubbard

Adds Sound

and Color

ONCE a year Father Bernard Hubbard, S. J., the "Glorious Priest," makes a call in Los Angeles. On April 5 he came this year, under the auspices of the Pacific Geographic Society, and he found many friends and admirers waiting for him at the Shrine Auditorium. That's a big place, seating 6000 persons, and most of those seats were filled.

And, it may be remarked in passing, it is the twenty-first time in which the priest has appeared under the same sponsor during the last eight years.

The vast audience was entertained; thrilled would be a better word. Motion pictures of Alaska as usual were a part of the program. But out of the usual were pictures in color and pictures in sound. Dufaycelar was used in the reel devoted to color. Sound was employed at times—when it excited the mass.

At one time a gale was recorded. The wind blew with arctic ferocity, as few men are given to see it, as it did in the Antarctic when it was recorded at the time of the previous Byrd expedition. At another point Father Hubbard recorded an entertainment staged at King Island by Eskimos. This was of particular interest, bringing home to the auditor with vital force what sound means to the mass in civilization, of the insight, of the understanding, it gives to him of the man in the wild.

Shows in advance were two reels of Twentieth Century-Fox shorts in which Father Hubbard is photographed with two companions searching the glaciers to locate their beginnings. There are many shots of the tumbling cliffs of snow and ice, as these are seen from the water. But the intimate scenes are of the two climbing over the cliffs and waders and crevasses of the glacier.

Understrange Temperatures

One of the objects of the explorer is to secure a record of the temperatures of the interiors of the glaciers at different depths. At one point an assistant drops 200 feet on a rope in order to obtain a reading. The narrowing of the aperture finally compels ascent. Travel over the glacier is extra-hazardous at all times. The danger comes much from the treacherous thickness of the surface.

The high part of the entertainment this year is the screen record and the verbal report of the trip made by Father Hubbard of 2000 miles through Bering Strait and to the east as far as Point Barrow.

The object of the trip was to test his theory that the Eskimos are descended from refugees of Genghis Khan. He visited all the Eskimo settlements between Nome and Point Barrow and found the language identical.

The trip was made in a coriak. The boat was constructed right on King Island, a small spot ninety miles from Nome. We see it built by the natives, the skill represented being that of generations of Eskimos. The cover of the

boat is walrus hide, several of the skins being sewn together by the women.

As each average sized walrus hide weighs 800 pounds, the skin before the fat is removed being as thick, thick, plenty of tailoring problems are presented to the men and women who fashion these craft.

Into the boat go four tons of supplies—ammunition, guns, fuel, food. Nine men are aboard. Yes, and there are cameras and photographic supplies. Two engines add to the weight. Also, "for company," are two dogs.

The explorer explains that heseofore eighteen months has been allotted to this expedition. This time five weeks was allowed for the trip, and the time was sufficient. Under easy sailing speed the boat made twelve miles an hour. When the engines were "given the gun" it was the fastest craft ever seen in parts of the territory it was designed to cover.

Looks for Wings

To the natives sportsboats are more than a rarity, while airplanes are more or less common. It is entirely understandable that one of the natives should aspire to be maneuvered at the speed with which the coriak slid through the water, like an airplane just before it left the surface in flight. "Where are the wings?"

The settlements are many miles apart. The pictures are of deep interest, from the point of fact as well as of photographic interest. The inhabitants of an Eskimo village certainly go any length to entertain visitors who are as seldom seen. As a result the itinerary frequently is disrupted—and delayed.

Now that Father Hubbard is making progress with his sound there is no reason why he should not, of course following his regular lecture season, permit his pictures to be exhibited everywhere regular commercial films are displayed. The pictures are educational beyond a doubt. But primarily they are entertaining, as had previously they are thrilling.

They are theatrical in full effect, real entertainment. Those who remember "Nanook of the North" will have no doubt of what Father Hubbard's pictures, with the addition of sound, will mean to the world at large.

For Father Hubbard is no ordinary conscientizer. In the last place he is a wit, a real humorist. To be sure, he is a rapid speaker. His audience has to be fully awake or he may as well be asleep.

It has been said he is a humorist. He is more than that, he has the becoming manner, of the man who can face danger without making a flinck. The priest fraternizes with the Eskimos; his regard for these natives thrives for him. Perhaps this is one reason why men and women throng to see him each succeeding year, bringing with them results. Plainly Father Hubbard gets along with those into whose company he is thrown.

The world has a name for him—regard gay.

New HCE Synchronizer Is Ready for Speedy Action

The new HCE "Hollywood" Pencil Flame Flash Synchronizer, 1600 Calaveras Blvd., Hollywood, is guaranteed to be accurate and dependable for Graflex, Speed Graphic, and all other 35mm. models, and sizes of focal plane shutter cameras.

Formerly, with between-the-lens shutters, flash shots were limited to 1/2000th of a second, but now you can shoot any action at 1/200 to 1/3000th of a second without re-synchronization. Uniform exposure with no hot spots or fadeouts is assured.

Not only is the scope of picture possibilities greatly enlarged, but the one synchronizer will do the work for every lens you wish to use, for the installed unit is an integral part of the camera itself and absolutely independent of the lens, thus enabling you to cover sport and action events, indoors, at night, or wherever high speed synchronization is required.

Three days after the receipt of the camera is required for the installation of the synchronizer, complete with battery, case, holder, and reflector. Your camera should be well packed and fully insured for transit. You may either send your retainer to cover the type of installation and number of auxiliary lighting units desired, or the camera will be returned to you C. O. D., if you prefer

SOME RECENT FILMS

Irene

It is difficult to conceive of traveling a greater distance between two points than to go from "Nurse Edith Cavell" to "Irene." If it happen you have seen that sterling actress Anna Neagle in no other play between the two then you may as well wake up your mind it will require a few minutes to orient yourself before stepping completely under the illusion of the girl with the Irish brogue. For certainly there is a striking contrast between the characterizations.

Yet one is as complete as the other. Miss Neagle steps into the part of a dancing and singing comedian as easily as may be imagined. And as easily, of course, as only after abundant experience. She is asked—and abetted—by a crew of good actors in old and tried parts, such as for instance Ray Milland, Roland Young, Alan Marshall, May Robinson, Biffie Burke, Arthur Treacher—but why go farther?

It's a good show, an enjoyable show. There's a lot of fun in it and a measure of drama.

Russell Mett, A.S.C., and Vernon L. Walker, A.S.C., carefully watched over the photography, the latter the special effects. Very strikingly there was a sequence in Technicolor, designed to enhance the appearance of Miss Neagle in an Alice Blue gown—and very effectively it did.

Till We Meet Again

Warner Brothers Studio has produced a superb picture, one of the best a man will think about when he opens his eyes the following morning. Apparently it is the work of human beings, several of them. There is the writer, Robert Lord; the screen play, Warren Duff, the director, Edmund Goulding, with grateful appreciation on his part to Anatole Litvak; to the players, led by Mezie Oberon and George Brent.

It is a tragedy from the beginning, although no blood is shed. But over two persons a sword is suspended, or over one of them it is a rope and over the other it is a tied heart. Each is aware of his own fate but unaware of the other's. The man knows he is in the grip of the law, but hopes to prevent the woman's learning of it. The woman knows of her own fatal misdeed, but will go any length to prevent the man she loves becoming aware of it.

The two travel across the Pacific from Hongkong through Honolulu to San Francisco. The woman seeks to speed the marriage, the man to delay it unless he should be free. He goes to his death as a recaptured prisoner with his eyes open when he carries the woman on

By George Blaisdell

board the steamer when she is stricken. Unknowing of his grave danger she lets him bear her back to the boat.

It is one of the prettiest love stories that has been filmed in many a day. There is a splendid supporting cast, Pat O'Brien, Bruce Barnes, Frank McHugh, Eric Blom, Geraldine Fitzgerald, George Reeves and so on down the list.

Tony Gauda, A.S.C., directed the photography, and he saw to it the camerawork matched that of the others contributing to the story. The veteran in an familiar ground, ground he has been covering for many years, ground on which he steadily improves, when he gets behind or around a camera. No better evidence may be secured of this statement than to follow him through the course of this picture.

Bryan Harkin, A.S.C., was responsible for the special effects. Just one of these is worth while in the thrill it creates—whereas Brent pushed back the bolt in the gate on an upper deck and the camera followed the handcuffed prisoner and the detective all the long way to the water.

Dr. Kidnare's Strange Case

That was a fine performance M-G-M gave in "Dr. Kidnare's Strange Case." Although the whole story is in and around a hospital the depression that usually follows such an association is absent. There are a plenty of lighter moments as well as a plenty of heavier moments—sequences when doctors are made to be human beings and not stuffed shirts, as well as moments of real drama.

There's a trio at the top of the cast that are well worth attention under any circumstances—Lionel Barrymore, Lew Ayres and Lorraine Day. There's a fourth one, Shepperd Strudwick, who will be noticed much. Then there are brief appearances by Samuel S. Hinds and Errola Dunn, as well as by Alma Kruger and Walter Kingsford, but each will be recalled in running over the picture.

John Seitz, A.S.C., is behind the camera and to splendid advantage. His work on the scene of the operating room will be followed by amateur cinematographers, advanced and otherwise, with intense interest. The situation is complicated by a gallery outside a glass partition, wherein those vitally concerned in the result are shown from a set-up inside the operating room and from the outside.

There is a set-up showing the faces of those who are outside and another of what they are watching from their standpoint. There is another of the surgeon and nurses from the inside following

only their work and also a view of the gallery outside. It is a fine bit of photography and of cutting.

The Courageous Dr. Christian

Jean Hersholt is seen again in one of his Dr. Christian stories—a tale of folks who live across the track. There is a resemblance to the Dent Bowl victims in the undergarments who are thrown together in the slams of the town. There are the not unendearing scenes of dirt and squallor, of disease and epidemic. Hersholt is the family physician in the tract sense—the smalltown doctor who warns the town's business men they must have hospital facilities or there will be serious results.

This tale of EKO-Radio's is one for the whole family. There are two small children, a boy and a girl, who will engage the attention of the younger theatriques. Two of the screen's leading character actresses, Maude Eburne and Vera Lewis, add immeasurably to the generous worth of a picture which at times is unusually serious.

John Alton, A.S.C., is director of photography, and his work is well done. He makes it fit the mood of the story, low-lighted and somber.

Johnny Apollo

Twentieth Century-Fox has produced a strong melodrama in "Johnny Apollo." The five men at the top of the list will draw attention in any company—Tyrene Power, Edward Arnold, Lloyd Nolan, Charley Grapewin and Lionel Atwill. There is one woman in the cast, Dorothy Lamour, but she does not take it away from the men.

Arthur Miller, A.S.C., is director of photography. He contributes his full share to strengthening the emphasis that is laid on the father and son angle to the story. On many occasions there are closeups of the two, Arnold and Power. It is here the photographer devotes his best thought to bringing out what the player is striving to achieve—as to improve upon his fellow-player and through him to his vast audience the emotions stirring within him.

It is a splendid father-son story.

Two Girls on Broadway

M-G-M's "Two Girls on Broadway" is a pleasing musical comedy and marks the introduction of a new dance team to the screen, a successful dance team, by the way—George Murphy and Lana Turner. Joan Blodell is named in the M-G-M studio for her first appearance there in order to supply added prestige to a new

combination. But while her presence was most welcome, while it added materially to the entertainment and the dramatic quality of the performance, the new scene easily carried the show.

Kirk Taylor at the head of the cast, Richard Lane, Wallace Ford and Lloyd Corrigan all contributed to the entertainment factors. B. Sylvan Simon directed.

George Fisher, A.S.C., directed the photography. He had plenty to do and required himself notably well. The scene scenes were extended and lively, involving much rapid shifting of lights and covering large areas. There was careful attention to lights and shadows—and definition—in closeups. And there were the multitudinous number of stilled details which every good photographer incorporates in his work which is absorbed in the satisfied, by the unwitting or unconscious beholder.

Forty Little Mothers

It is not often one is given opportunity to look at a picture made in France, on a rather slender budget, as it were, and then a number of months later to look upon the same theme, the same picture, being presented by an American company and lavishly made. "Forty Little Mothers" was made a number of months ago in France. It has now been made by M-G-M, starring Eddie Cantor and directed by Ruddy Bekeley.

The subject was simply told as well as simply made. There's a baby present all the way through the tale, very much present. In the French version he was just an ordinary child. In the American he is a who, a distinct find. The mother, in the former version, is a player without distinction apparently. In the present case Rita Johnson has marked appeal.

In the former story the hero is a window washer, the while he desperately hunts for a teaching job, more in keeping with his superior education. In the present one the star is a down-and-out, without employment, as the picture opens.

The first version was a serious picture, with comedy touches, comedy by situation. The Hollywood version is serious sometimes, burlesque others, farcical others. Many times it goes and moves. To one who has not seen the first version it will be a delightful tale. To one who has seen it the Hollywood version, as satisfying as it is, might have been that much drier. But difference of opinion is what makes home runs.

Judith Anderson, who was practically introduced to the screen in the part of "Rebecca," is seen as the lead in Madame Germaine. It's a splendid performance, one in which this time she is permitted occasionally to be almost human.

But Baby Quantilla is the real thing. He's worth going back to see again—and there are several other features which must well be seen again.

Charles Lawton, A.S.C., is director of

photography. He accepts the many splendid opportunities for picturesque scenes which fate is his lap, of a lively, shifting camera in a regular besquet, of the high lighted directions of forty schoolgirls at play and study, of charming settings around the Germaine school—making it a delight to the eye filled with youth and charm.

It All Came True

Ann Sheridan stars in Warner Brothers' "It All Came True." She had too, plenty of competent assistance. There were Jeffrey Lynn, Humphrey Bogart, Zena Pitts, Les O'Connor and Jesse Lasky in the first string. And there were others in the second. There was an abundance of entertainers of the 1890 type, and somehow they don't seem to make you quite as good as any other period. But then, again, a man, of course may be prejudiced.

The story opened quietly, without any fanfare, but it gradually began to bite in. It was a long way, short of half way down when it was going strong, and so it continued right to the end. Entirely apart from the drama, there was genuine entertainment. In this, by the way, Miss Sheridan and Jeffrey Lynn contributed.

Ernie Haller, A.S.C., directed the photography. And it was a photographer's picture. There were lowlights and high-lights. The sequences ranged all the way from a shooting in the new darkness to the glorification of Ann in all the bloom of her youth and good looks.

The lighting of the girl was right "on the nose." It was light to a "C" not

over, not under. Yet it was lifelike. If amateur cinematographers may wish to draw themselves from the illumes of the story at any point—and don't for a moment think it is easy—they will be deeply interested in following the manner in which Ernie Haller has put this girl on the screen.

Besides, there are a lot of other plays to receive equal attention.

Florian

Wendell Sheridan, for many years executive producer for William Fox, returns to the production field in the making of M-G-M's "Florian." It is a worthy re-entrance. "Florian" will rank with one of the more notable subjects of the month. Its title bears the name of a horse, but there's plenty of interest besides the marvelous animal from Vienna.

Robert Young has the leading male role, while Helen Gilbert, who plays opposite him, was a concert artist who was discovered in a studio orchestra and tested for the part. She is a "natural," meaning speedily she plays just like that. The two make a fine team.

Some of the unusual performances are by Charles Coburn as the veterinarian, Reginald Owen as the Emperor Franz Joseph, Lucile Watson as the Countess, and Trina Hamann as the ballerina.

Karl Freund, A.S.C., is director of photography, and he has excellent opportunities to display brilliant shots. There are good exposures in the Austrian dining, too. There were cleverly indolent with the American pictures, blending finely, and making a subject that as a whole will take photographic rank.

And One Was Beautiful

The beginning of M-G-M's "And One Was Beautiful" is not suspicious. Jean Mus as Helen Latimer is given a part to play that is more than ordinarily disagreeable. If there is any redeeming feature in her character, we don't seem able to discover it. She is the bad sister.

There is another sister, Kate Latimer, the good sister, played by Lorraine Day. She is not so much in the story at first. When she meets Ridley Crane, played by Robert Cummings, who is something more than a playboy, and is fascinated by him, things happen fast. From that point on the story is entertaining. Helen Latimer becomes of secondary interest. Kate Latimer is set in front in audience concern.

And it is at this time that Crane, charged with a hit and kill that really was caused by Helen's driving, decides to "take the rap" in order to protect the Latimer family. He goes to jail, with audience sympathy solidly behind him. Kate is striving her hardest to get him released. That audience interest is held tightly to the end.

Ray June, A.S.C., directs the photography. There is a wide variety of set-

(Continued on page 265)

Union Oil Industrial Film Shown with Telefilm Sound

At the studio of Telefilm Hollywood April 10 the Hammer Gilliam Company industrial company, exhibited its Union Oil picture. It is of recent manufacture being in 16mm. sound in Kodachrome. Mr. Gilliam explained before the showing that he had over a score of years created equipment to do things in 16mm., in which medium he had specialized. Recently 16mm. had come so strong to the front he found himself duplicating in 16mm. what he already had in 35mm., but that it was necessary to do so to keep abreast of changing conditions.

The sound was installed by Telefilm Hollywood, with Bob Sherwood, the NBC commentator, doing the talking. The sound was excellent, as was the picture in all departments.

Before the showing Telefilm installed a Novachord, made by the Hammond Company of Chicago. It was demonstrated by F. H. Boshart of the Hammond Company's Los Angeles office. The Telefilm company was congratulated on the acquisition of so valuable an instrument by the considerable number of interested visitors.

Treatment of Camera Lenses with Low Reflecting Films

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AN *f*/11 photographic lens having five separated elements was treated with evaporated fluorite to decrease the reflection from all ten air-glass surfaces. Photographs were taken with the lens under carefully controlled conditions before and after it was treated. The effective speed of the lens was found to be almost doubled by the treatment. A slight increase in contrast resulted in photographs taken under normal lighting conditions and a large increase in contrast resulted in those taken under adverse lighting conditions. An increase in detail was observed because of the absence of flare and the great images usually observed under adverse lighting conditions were eliminated.

IT IS well known that rapid and highly corrected camera lenses require a large number of separated elements. Each separated element reflects about 10 percent of the incident light. In consequence good camera lenses will ordinarily transmit only about 60 percent of the light falling on them.

The incident light reflected from each air-glass surface is, unfortunately, not merely lost; about 5 percent of this light is reflected again from other surfaces. Some of it strikes the photographic plate where it may superimpose the confusion, produce a flare pattern, or in extreme cases produce a ghost image.

Denys Taylor observed in 1882 that tarnishing of camera lenses led to an increase of their effective speed. The tarnished surfaces of the glass elements of high refractive index diminished the reflection of light from the air-glass surfaces and thereby increased the transmission of the whole camera lens.

Various methods were devised for artificially tarnishing glass, but apparently the results were not sufficiently effective to justify their adoption by the manufacturers of camera lenses. It is now evident that the tarnish is actually a film of a transparent material having a lower index of refraction than that of the glass.

To be most effective, such a film must fulfill specific requirements. A homogeneous film that reduces reflection to zero for one particular wave-length of light must satisfy two conditions: (1) The index of refraction must be equal to the square root of that of the glass, and (2) it must have an optical thickness of one-fourth of the wave-length of the incident light.

The first condition is difficult to fulfill exactly, because it requires a film of an abnormally low index of refraction. Even when this condition is satisfied only approximately, however, a marked decrease

in the reflection from glass is possible. The second requirement is of paramount importance. Although it may be fulfilled exactly for only one wave-length, the reflectance is greatly reduced throughout the spectral range used for most visual and photographic purposes.

These two conditions can be satisfied rather well by evaporated films of the metallic fluorides deposited on glass in vacuum.¹ The present investigation was undertaken to study the effectiveness of such films on photographic lenses.

Several fast camera lenses were treated with different metallic fluorides. The tests herein described were made with a Zeiss camera equipped with a Schneider-Kreuznach lens, *f*/5, *F* = 5 cm. The ten air-glass surfaces were treated with evaporated films of calcium fluoride.

The reflection from the separate elements was observed during the formation of the film and the evaporation of the fluorite was stopped when the reflection of white light appeared to be a minimum. Fig. 1 shows the transmission of the central portion of the lens before and after the ten surfaces were treated.

Note that the transmission of the untreated lens was somewhat higher than would be expected for the particular glass elements in this lens. This extra transparency is undoubtedly attributable to an original tarnish on the high index elements.

For example, one element of barytes crown having an index of refraction of 1.603 transmitted 33 percent instead of the expected 20 percent. Fig. 1 shows that the increase in transmission resulting from the treatment was about 10 percent at the central portion of the lens.

A still greater gain is expected at the periphery of such a lens. Of particular interest is the fact that the total transmission of the five treated elements is greater than that of a single untreated glass plate. Since all surfaces were

treated to give minimum reflectance near the middle range of the visible spectrum, the transmission of the lens was greater in these wave-lengths than in the violet and red.

It would be possible, of course, to set the maximum transmission for any desired spectral region. Or, by varying the thickness of the films on the different surfaces, one could obtain a uniform transmission throughout the whole visible spectrum.

A group of test objects was photographed with various exposure times and apertures of *f*/8 and *f*/3.5. The test objects consisted of a large sheet of white paper (36 cm x 36 cm), a large sheet of black paper, a special set of nine rather large gray sheets, an Eastman gray scale, Eastman color patches, a black-and-white drawing, and a detailed color chart for camera masters.

Two seven-watt lamps placed one meter in front and one meter on either side of the test objects served for illumination.

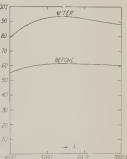


Fig. 1. Percentage transmission of the lens before and after being treated (Schneider-Kreuznach lens, *f*/5, *F* = 5 cm.)

¹ Denys Taylor, *Identification and Tarnish on Telescope Objectives* (F. Inst. Sci., England, 1938); J. Kellerman, *Trans. Soc. Eng. 12*, 106 (1910); J. K. Kautz, *Opt. Soc. Am.* 20, 176 (1925).

² J. S. Allen, *J. Opt. Soc. Am.* 26, 175 (1936).

³ H. B. Beckwith, *Phys. Rev.*, 20, 11 (1925).

⁴ H. B. Beckwith and S. J. Tatum, *Rev. Sci. Instrum.* 12, 261 (1941).

⁵ H. B. Beckwith and S. J. Tatum, *Rev. Sci. Instrum.* 12, 261 (1941).

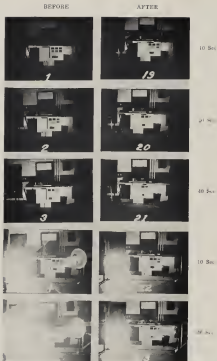


Fig. 2. Pictures taken with an exposure of 1/2 before and after treatment (10000). An antenna held in, photographed in pictures No. 1 to 22 and 23. Duration: 100 pictures (Schneider-Kreuznach camera 1/2, F=1 cm.)

The outflow through the lenses was kept constant by means of a vacuum.

Exposure times of from five to eighty seconds were measured with a stop watch.

Pictures, before and after the lens was treated, were taken on parts of the same roll of 35-mm Eastman Panatomic x film. The pictures were all developed simultane-

aneously. The photographic negatives were measured for density. Contact prints, made simultaneously of all the negatives, served for additional compar-

BEFORE

AFTER

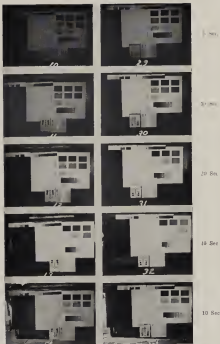


Fig. 1. Pictures taken with an aperture of $f/2$ before and after focusing the lens. An intense light is shining into the lens in pictures Nos. 14 and 33. Distance 20 meters (Schneider-Kienzsch apparatus 1:2; $F=3$ cm.)

ness. Although attempts were made to control the enlargements used herewith as illustrations, some variations undoubtedly occur because the enlargements

could not be made simultaneously. The pictures in Figs. 2 and 3 were taken with an aperture of $f/2$. The exposure times are indicated in the figures

Pictures 4, 11, 5, 12, 13 and 33 show the effect of a strong light shining into the lens. In this case, a forty-watt lamp was placed to one side and a little behind the

Table I. Measured densities of the photographic records of the large black and white objects in Figs. 2 and 3, Aperture 1.2

EXPOSURE	PAPER	BEFORE		AFTER	
		DENSITIES		DENSITIES	
10 sec	No. 1	0.44	1.35	0.37	1.35
20	No. 2	0.49	1.38	0.43	1.8
30	No. 3	0.55	1.9	0.50	2.0
10*	No. 4	1.20	1.52	0.96	1.70
20*	No. 5	1.54	1.8	1.18	2.0
5	No. 10	0.16	0.87	0.52	1.20
10	No. 11	0.44	1.22	0.39	1.48
20	No. 12	0.45	1.54	0.39	1.8
40	No. 13	0.47	1.8	0.40	2.0
10*	No. 14	0.81	1.48	0.62	1.64
					No. 23

objects to appear whiter and the reduced flare causes dark objects to appear darker. The treatment of the lenses also produces a noticeable increase of the detail of the pictures due to the reduction of flare.

The practical advantages to be gained from low reflecting films are, of course, not confined to camera lenses but are present in any optical system, particularly those involving many airglass surfaces. Many optical instruments have been treated and in each case there was an increase in transmission and a reduction of flare and ghosts.

For many instruments the reduction of flare alone justified treating the optical surfaces. For example, this was true for the Tuckerman Autocollimators, treated for Dr. Tuckerman of the National Bureau of Standards, and for a coronagraph treated for Professor D. H. Menzel of the Harvard Observatory.

I am grateful to Mr. E. H. Withers, agent of the Spencer Lens Company for kindly loaning his personal camera for the tests reported here. I am also indebted to Professor A. C. Harvey for use of his color analyzer, which greatly facilitated the measurements of the spec-

tral objects. This was an intense light compared with that used for illuminating the objects.

The pictures of a bright light, as shown in Fig. 2, are probably the most striking. Photographs taken with the treated lens show no ghost image and a greatly reduced flare. Ghosts and flare originate from light that has been reflected at least twice inside the lens.

Consequently, in treated lenses, with the reflection from each surface of the glass reduced about ten times, ghosts and flare are reduced at least a hundred-fold, i.e., as the square of the reflecting power of the surfaces.

Comparisons of the exposure times and the apparent densities of the pictures in Figs. 2 and 3 give a measure of the effect of the treatment, which appears to have about doubled the lens efficiency.

It was found that for the same exposure times the pictures taken with an aperture of f/3.5 after the lens was treated give about the same density as those taken with an aperture of f/2 before the treatment. Part of this apparent increase in efficiency is subjective.

An increase of detail and especially of contrast results from the enormous reduction of the flare that ordinarily produces a fogged background in pictures taken with untreated lenses. The curves in Fig. 1 might indicate that the effective speed of the lens should be increased only 50 percent by the treatment.

As previously mentioned, however, these curves are for the central portion of the lens and do not include the peripheral portions where the reflection losses were originally greater.

The measured densities of the photographic records of the large black and white circle given in Table I correspond to the pictures in Figs. 2 and 3. Two sets of pictures of the group of nine rectangular grays, at a distance of 80 cm give densities as tabulated in Table II. Also

Table II. Measured densities of the photographic records of the scale of nine grays, such as shown in Fig. 2, Aperture 1.2. For the 10-sec. exposure, an intense light was shining into the lens.

REFLECTANCE OF GRAY	DENSITIES FOR DIFFERENT EXPOSURES BEFORE TREATMENT				DENSITIES FOR SAME EXPOSURES AFTER TREATMENT			
	10 sec	20 sec	40 sec	15-sec.*	10-sec.	20 sec	40 sec	15-sec.*
0.37%	0.62	0.61	0.77	0.06	0.30	0.60	0.78	0.08
8.8	0.64	0.74	0.94	0.80	0.42	0.80	1.02	1.00
14.6	0.80	1.00	1.22	1.00	0.53	1.06	1.40	1.42
20.0	0.92	1.18	1.40	1.18	1.00	1.42	1.90	1.79
29.5	1.07	1.42	1.62	1.65	1.22	1.58	1.9	2.0
38.5	1.24	1.64	1.8	1.80	1.44	1.8	2.3	2.1
49.0	1.46	1.80	2.0	1.60	1.62	2.0	2.2	2.2
63.5	1.59	1.9	2.2	1.75	1.8	2.2	2.3	2.4
80.5	1.69	2.1	2.6	1.8	1.9	2.3	2.4	2.5

in Table II are given the reflectances of the original grays for 5568 Å.

The data in the table show that treating the lens almost doubles the efficiency in many cases, as well as increases the contrast. The increase in contrast is most noticeable under the adverse lighting conditions that ordinarily cause flare and ghosts.

The added transmission causes white

transmission of the lens, measurements which otherwise would have been extremely laborious.

We have received from C. Hawley Cartwright of the M.I.T., author of the foregoing paper, the following note and photographs.

"I am enclosing a pair of photographs taken by Professor D. H. Menzel of the Harvard Observatory, before and after his coronagraph was treated in this instrument, the sun is focused on a disc, and the light coming from the edge of the sun is photographed.

"The result is that of a perfect eclipse of the sun. Unfortunately, the treated pictures do not show any prominences on the sun, but they do illustrate how the treated glass increases detail and they illustrate that the flares do not scatter light. This is probably the most severe test for scattering in a lens."





TECHNICOLOR LOWERS PRINT COST 1c FOOT

Another step toward the all-color screen of the near future was taken by Technicolor in April when Dr. Herbert W. Kahn, president of Technicolor Motion Picture Corporation, announced a price reduction of 1 cent a foot.

The reduction, which becomes effective August 1, 1940, applies to all 35mm motion picture release prints, exclusive of advertising and industrial subjects, delivered at the Hollywood Technicolor plant for distribution and use in the United States.

The reduction was made voluntarily by Technicolor to give increased opportunity to satisfy the rapidly growing public demand for Technicolor pictures, as attested both by exhibitors' polls and the popularity of recent Technicolor productions.

The present price reduction was made at this time even though Technicolor has contracts with its customers for more than twenty feature length productions and a large number of short subjects, which would normally require between fifty and one hundred million feet of release prints for domestic distribution.

Through the years Technicolor has steadily improved its product and at the same time lowered its manufacturing costs. It has been Technicolor's constant policy to employ a considerable part of the savings thus effected by plowing it back into its business for research and development work, which has made possible an ever increasing service to its customers and an ever improving quality, and by lowering the price of prints.

Effective August 1, 1940, the new schedule for feature productions becomes:

Three-component 35 mm nitrate base release prints delivered at the Techni-

color plant in Hollywood for distribution and use solely in the United States of America: For each single order of 250 prints or more, 4 1/2 cents per foot, for each single order of 200 to 249 prints, 5 cents; for each single order of 150 to 199 prints, 5 1/2 cents; for each single order of 10 to 149 prints, 6 cents; for each single order of 10 to 49 prints, 6 1/2 cents; for each single order of 1 to 9 prints, 7 cents.

For short subjects, three-component 35mm nitrate base release prints de-

livered at the Technicolor plant in Hollywood for distribution and use solely in the United States of America: For each single order of 125 prints or more, 3 1/2 cents; for each single order of 50 to 124 prints, 4 1/2 cents; for each single order of 1 to 49 prints, 7 cents.

Victor Has New Two Speaker Unit Under Single Handle

Of interest in the educational field and industrial field is Victor's new Two Speaker Unit in one case under one handle (as shown at left). This exclusive Victor arrangement permits the use of two speakers when they are required, and avoids the inconvenience of carrying two cases with the projector. In addition, it is unquestionably a great advance in portability of sound movie equipment.

The Victor engineering department also takes pleasure in announcing two engineering developments in the Amphophone units. The model 40A Amplifier output has been doubled—and the model 40B Amplifier output has been increased 50 per cent. Both models have separate "mike" control built in.

In addition to Victor's Famous Film Trip, there is now even more film protection. In these new models no picture or track area is in contact with plates, shoes or rollers.

New Slide Projector by B & L

A new 2 in. by 2 in. slide projector offering crisp, brilliant screen images is now being offered by Bausch & Lomb for the serious worker with microscopes who desires projection of black and white and color transparencies on a par with the 3 1/2 by 4 in. slides used in standard Roliflexes.

VARD MECHANICAL LABORATORY announces

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VARD Opticote SURFACE

THE SUCCESSFUL SCIENTIFIC PROCESS OF COATING OPTICAL SURFACES

For Reducing Reflections and Increasing Light Transmission in

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Your Own Present Lenses and Optical Systems Can Be Treated and Will Benefit from OPTICOTE Surface

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PASADENA, CALIF.

"Dr. Cyclops"

In Two Counts in Hall of Fame

THIS reporter happened to view Paramount's "Dr. Cyclops" by accident, in conjunction with the screening of another film, and some time after the subject had already been viewed. The film is worthy of a place in the cinematic Hall of Fame on two counts—first, it is the first "trick-camera" production made in three-color Technicolor, second, it is the first motion picture that even begins to utilize the transparency projection process to its full usage as a means of making trick shots.

As such, the real credit for the production belongs to Director of Photography Henry Sharp, A.S.C., his Technicolor associates, Winston Hoch, A.S.C., and to Marcel Edouart, A.S.C. and Wallace Kelley, A.S.C., who had charge of the process photography.

Credit should also be given to whoever it was that made the several excellent matte-shots seen in the production.

Farciot Edouart and his confederates have covered themselves with glory taking exceptional care of all the trick scenes. It must be admitted that they used little, if anything, that could not be performed by anyone familiar with the transparency projection process and its possibilities; but they did their work superlatively well, under the added handicap of the supposed technical limitations of Technicolor.

Camera Points Downward

The basic idea of making characters appear unusually small by having them work on overcast sets is hardly new. I can recall seeing the trick used in silent films by Harry Arbuckle, Harry Langdon, Laurel and Hardy, and others. But in this instance, unusual care was taken in planning set design, perspective and camera angles. It will be observed, for instance, that in all of these scenes the camera is pointed well downward from a point ten, fifteen or more feet above the actors, greatly enhancing the illusion of their diminished size.

A directly convincing touch in one of these scenes, by the way, is the use of apparently huge footprints in the dust, made apparently by the normal-sized "Dr. Cyclops."

The idea of combining these overcast

sets with extremely large-scale projection process backgrounds is likewise none too novel. But these shots are excellently—and most convincingly—done.

In many of them—made, I suspect with the addition of the new, Academy Award-winning process lenses, projection heads and lamphouses contained in Edouart's triple-head projector—Edouart and Kelley have to an incredible extent gotten away from the ordinarily flat impression so common to process backgrounds, and achieved a natural contrast that is convincing, even to the technically inclined.

In a word, you know they're process shots—but you can hardly believe it, they look so natural.

There is nothing outstandingly new, either, about the idea of projecting process backgrounds on a miniature scale into full-scale sets, to give the illusion of abnormally small people in the same room with a normal-sized man.

Trick Scenes New

The idea was certainly used in "King Kong," and I believe also in "Aces in Wonderland," but the perfect execution of these shots, added to the greater as theretofore possible in Technicolor, makes the trick seem new.

There are a couple of shots which will make even the trained technician sit up and wonder how it was done. Among these are those in which we see "Dr. Cyclops" in a projected background creep up on a mudget-sized character and suddenly reach around to capture him with an immense butterfly-net, and others in which the weird doctor reassures the little man first with a ruler and then, holding him in one hand, with a pair of gigantic calipers.

These, however, are more easily understood when, in the first instance, it is observed that the doctor reaches his arm around a rock outcrop—and conveniently out of both the process frame and the actual composite frame!—to bring his net down from behind the unsuspecting mudget.

And both this and the caliper shot are easily understood when one recalls the extreme overcast up-lamp employed to hold Fay Wray in certain scenes of "King Kong." As for the measuring scene, a great deal, indeed, is possible when, like Edouart, you have a triple-

head process projector capable of giving a thirty-foot image, even in Technicolor!

In truth, the actual novelty of these shots is by no means their greatest claim to success. What makes them really outstanding is the painstaking attention to detail in perspective, blending background and foreground—reality and projected images—in each individual shot to give a perfect illusion of reality.

Edouart has long been famous in the industry for the meticulous attention he pays to details of perspective and camera placement in making ordinary backgrounds and composite shots.

Color Men Achieve

In "Dr. Cyclops" that attention to detail has paid him and his associates incalculable dividends, giving his studio the most convincing trick picture filmed in many a long year.

In a production such as this the special process achievement must almost inevitably overshadow the conventional sequences. But it must not be overlooked that Henry Sharp and Winston Hoch have achieved notably in their own less spectacular work. Their use of projected color in the scenes where Dr. Cyclops is operating his fantastic machine is most effective.

Their opening sequence, too, is very cleverly handled, subduing much of the effect of color with a ghostly green lanternscreen.

This is smart photographic showmanship, for almost inevitably Dr. Cyclops will be shown on bills preceded by Black-and-white films (if only suspense, perhaps), and this beginning leads the viewer into color so subtly that he is hardly conscious of the often dazzling fact of color before he begins to follow the plot with absorbed interest.

Thereafter, color becomes natural—an accepted commonplace—especially when the color is handled as skillfully as Sharp and Hoch have handled it.

In this connection, too, it should not be overlooked that Sharp has to his credit what was unquestionably the most perfectly photographed production ever made in the skies, two-color Technicolor—Douglas Fairbanks' memorable "The Black Pirate."

During the shooting of "Dr. Cyclops," we encountered Sharp and Hoch at lunch one day, and asked Sharp his reactions as to color, then and now. His answer told the whole story, the "Black Pirate," he said, was a matter of show and painstaking shooting, involving test after test from start to finish.

"Dr. Cyclops," on the other hand, for all its trick photographic problems, was handled on almost the same production basis as a comparable moviehouse film—a matter of known photographic values, with experimental work relegated largely to the unfamiliar problems (which would occur anyway) of making the trick scenes correctly.

Truly, color has travelled far—and with such skilled technical and artistic ability being lavished on it, where way it not go in the future? R. S.

Cleveland Paper Describes Local Moviemaker

By W. WARD MARSH
in Cleveland Plain Dealer

IN the past half dozen years the hobby of taking amateur motion pictures has become almost as popular as snap-shot shooting was with the old box-type camera a generation or so ago. The more ardent enthusiasts today have either (in both) acquired still cameras with speed lens or movie cameras using 8 and 16 mm film. In this last group I know many who have been graduated from the infatuate scenes of every day life in the yard and stereotyped vacation scenes to pictures with continuous, telling a straightforward tale.

I probably have not seen all the top-flight amateur films here, but of those I have seen, the big three are Window T White whose African pictures are remarkably fine, Dr. James E. Blum of the Cleveland School of Dentistry whose dental films and publicity films for Western Reserve University are unusually good, and Jack L. Krapp, Cleveland advertising man, (director of public relations Cleveland Cinematographers), who has gone far into the field of the documentary.

In addition, there is the large and thriving group known as the Cleveland Amateur Cinematographers, a club of movie makers who meet regularly, display their produce, help each other, and simply make pictures. The group here is one of the most successful in the country.

This story is of Krapp's latest project, a story of Cleveland's blind. Having seen most of his work in the past it is safe to predict an unusual film from him this time.

His interesting documentary "Curb Market" gave glimpses of life in the hay-market district, the story of the meeting

put within shooting distance of the Terminal Tower.

His best to date is "The Staff of Life," a fine and brilliant documentary dealing with bread from the first turn of the plow for the wheat to the last turn of a small boy's lips over a well battered slice of the staff of life.

Story of Blind

It was rated among last year's ten best amateur films in the country in the Hiram Percy Maxim contest sponsored by the Amateur Cinema League, New York.

He has made many other films, but his next promise to be his best.

His new one will be filmed around the Cleveland Society for the Blind, and will portray the every-day activities within the welfare organization. His interest in this subject was aroused through the night-working work and not to the blind which the Liens Club, of which he is a member, gives from year to year.

He has spent the past two months writing a scenario from which he has prepared the final "shooting script." Every co-operation and assistance is being given him by the society and its executive secretary, Mrs. Eva B. Palmer, who has been identified with that organization for 29 years.

Eager to Help

The blind engaged in occupational activities at the Society of the Blind work shops have shown an eagerness to help in making this film which is tentatively called "Hands That Work in the Darkness."

The film, in addition to showing shop scenes, will feature cultural interests of the blind with much footage dealing with

the Grasmeth Players and other musical and literary groups.

The story opens in 1905 when persons who were interested in working among the blind met in the old Cleveland Public Library to read to the sightless. It follows the history of this group and shows its meeting and plans for the organization of the Cleveland Society for the Blind.

In 1907 a winning loan was presented to the society. A short time later a broom shop was started. It employed five at the outset. Now there are 25 in this shop.

Blind Playing Baseball?

Other sequences will deal with the educational department where reading and writing in Braille are taught. Society's shops and concertum stands as more than a dozen factories will be photographed. One of the unusual shots will show the blind playing baseball.

Krapp expects to film the training of the Last Leader Dogs at Shreveport, Mich., and show how they act as companions and how they aid the pedestrian-blind in city traffic. Several of these dogs are now in Cleveland, and they and their masters will appear in the film.

Silent titles will be augmented with verbal commentation and the entire film will have a suitable background of music. When it is completed, and Krapp expects to have it ready by September, it will be shown before Greater Cleveland groups to familiarize them with the work of the blind.

Hubbard Hunt Productions Made the Gilmore Run Film

The editor of this magazine has received a letter from Hubbard Hunt of Hubbard Hunt Productions, with offices in Hollywood, declaring its organization was the producer of the Yosemite film for 1940 under the auspices of the Gilmore Company. Mr. Hunt takes issue with this magazine in its statement that the film was produced by Hollywood Industrial Pictures.

Industry at the office of the Industrial company, prove the accuracy of Mr. Hunt's statement.

The picture was made under contract by the Hubbard Hunt Productions.

Two Catalogs from B-M

Bendi-Maree has just issued two new catalogues, describing the B-M Sound-Pro films, motion picture camera and the B-M films, sound recording system. The first named is available with galvanometer included for single system motion picture production or may be obtained without the galvanometer and used as a silent camera in double system work.

The other catalogue contains a comprehensive treatment of the elements which comprise the B-M Sound Recording System, some of the uses to which the system can be applied and brief instructions regarding its operation.

Littles' Eleventh Show Opens to Crowd

THREE eleventh of the series of Annual Movie Parties sponsored by Mr. and Mrs. Damon MaD Little was held in New York City at the Barbizon-Plaza Theatre, Wednesday evening, April 3, under the style adopted in 1936—Annual International Show of Amateur Motion Pictures.

Besides the main Show on April 3 there was a "pre-view" for the press and jury, held in the Little's studio, with some thirty-odd guests present, and at this writing a series of one-eight "road-shows" are still to be, about which it is hoped to have another story to tell in time for the June issue of this magazine.

Because the account has several times been told in *The American Cinematographer*, we will skip quickly over the early history of the Little's Annual Movie Parties.

Let it suffice that they began with the idea that each guest, or couple, must

bring a film to be projected as their contribution to the evening's entertainment. This was lots of fun, until a time came when the preferred material, all of which was screened, totaled better than a mile and a quarter. That was too much!

In those early days, it must be said, few of the films were really good, but nowadays, on the contrary, most are really good, many are excellent, and rare it is indeed that any have not some point (or points) of true merit.

Crowd Starts 1938

(However, as an aside to the dealers, principally in the large centers, we might suggest that the market for editing devices and timing outfits is not yet exhausted.)

In 1937 the great capacity of the Little's International Show taxed to its limit, and some new plan had to be considered. As has been said, the Salts

des Artistes was rented, and it was hoped they might have maybe 150 guests to partly fill a hall set with seats for 328, and about 380 cases!

For the next year, the Institute of Arts and Sciences of Columbia University sponsored the party, which was arranged as to show, in addition to the regular ones, called previews. The first was on the same old basis of films submitted by friends and their friends, the other consisting solely of outstanding prize films from the world in general.

But this, while a grand idea, and as arrangement of which Mr. and Mrs. Little were proud, had lost something that they did not like losing. Held in McMillin Theatre, the atmosphere was cold and lacked the friendliness and sense of comradeship that permeated their previous shows.

Something still had to be done, for not only did they themselves regret this change of agent, but their friends all spoke about it and deplored it.

Back to First Principle

However, as the lists of possible contributors had grown, and the list also of those eager to see good amateur films, so too was growing the expense of the show, and it was already at a point that no single individual should be asked to bear alone.

Therefore, in 1938 a theatre (the Barbizon-Plaza) was rented, and the show was held there, the audience for the first time being asked to pay for tickets. This came, and there was a full house.

Not wishing to make money out of this, their fun and their hobby, Mr. and Mrs. Little cut about for a worthy charity to receive the excess (if any) over expenses, and the Peabody House for Women was selected. Selected because their dear friend and loyal helper, Edward K. Warren, had for many years been president of the trustees, and Mrs. Warren was president of the Woman's Auxiliary, on which body she had induced Mrs. Little to serve also.

Peabody House received a very welcome and not insignificant check on the result.

Because of this new venture, and that as one might accuse them of asking their friends to pay to see his films, is that year Mr. Little partially refrained from submitting anything to the jury, and his name was conspicuously absent from the program.

Has Other Expands

So, having proved to their own satisfaction that there was real interest in these Movie Parties, or Annual Shows, both on the part of friends and of the public, as well, they repeated the plan this year for the Eleventh Annual, and again it has seemed to be successful.

Again Peabody House has received a substantial check, greater by half, than in 1939. Even some more persons learned away, so crowded was the theatre.

The *MEMORANDUMS* sent to the "Peabody Contributors" list in the fall of

GEORGE BARNES WINS PHOTOGRAPHIC HONORS

GEORGE BARNES, A.S.C., was given the bonus vote for photographs by the Hollywood Reporter's poll for the March release. The picture chosen was "Rebecca," from the Selznick-International studio. The honor was the greatest in remembrance of the two exceptionally photographed pictures that ran second and third in the competition. Karl Freund, A.S.C., was given the second award on MGM's "Flora," while Sol Polito, A.S.C., with Warner Brothers' "Vigilant City," was third.

"Rebecca" took pretty nearly a clean sweep throughout the poll. It rated as the best picture, as having the best director, Alfred Hitchcock; the best actress, Joan Fontaine; the best actor, Laurence Olivier; the best screenplay, Robert E. Sherwood and Joan Harston; the best supporting actress, Judith Anderson; and best incident performance, Florence Bates.

The best supporting actor performance was awarded Walter Pidgeon for his work in Universal's "It's a Date," best musical score, Charles Previn, "It's a Date," best original song, "Love Is All," "It's a Date," best general feature, and One Was Beautiful," MGM.

1938, were much the same as heretofore, and the method of selecting the program was exactly the same, by jury. Many letters were received and many letters were written to everyone suggested by friends and by former contributors, so that the films to be submitted before the jury might be as many as possible, and when the time came there were thirty-eight.

Two more that had been mailed on January 26 in Bombay only arrived on April 1, and one was added to the program, but unfortunately not for the press preview, for that had been held the night before.

Much Correspondence

Mr. and Mrs. Little had written between three hundred and fifty and four hundred letters, besides circulars, and had received about so many, and in addition fifteen telegrams and four "overnight cable letters." It had been no small undertaking.

Naturally, because of the war, foreign participation was sadly curtailed.

The fate of Austria is now ancient history. Dr. Fischer, who had assisted the actresses in 1938, when last heard of was in a German concentration camp.

So also as to Czechoslovakia, and Poland—Poland, whence came the two most beautiful color-films yet seen, one in 1938 and the other in 1935. (This latter Mr. Little still has, holding it in trust and in the hope that, like Belgium, Poland may again rise, as she has done before.)

As to their correspondents in those lands, the Littles know nothing today, and are sad because of this.

Censor Restrictions

From England had come offers of films, and more inquiries, but when the time came to send them, their friends found too many difficulties and too many restrictions, to say nothing of the dangers to which their prized films would be exposed. (Our understanding is that no less than three censorships were involved, one by Customs, for a twenty percent; one by the War Office, and one by the regular Censors, and these might not be considered as one screening, but must be separately done, involving maybe three weeks of lost time—War is certainly as Sherman said.)

Similarly with Austria. It had been hoped to receive the "Jacobs Cup" film, this contest being for films depicting a phase or phases of Australian life, and being exactly along the lines Mr. and Mrs. Little most approve. Again the hazards of War prevented the desire being fulfilled.

India Sends Two

Their good friend, Fred Ellis in Yale town, had long since written of the necessary curtailment, not only by him but also by all assistants, of filming

was out, as far as the 1940 show was concerned.

However, had postal time not been so stretched out, due to unprecedented conditions, there might have been a film from South Africa, but an inquiry from Johannesburg, in response to the circular mailed about November 1, was only received in New York on March 24!

But from India did come two films. As has already been said, these had been posted on January 26 and only reached New York on April 1—sixty-six days in transit from Bombay.

Four films were received from Canada. There still is, therefore, justification in calling this an "international" endeavor. So far as possible the jury is not let to know whose film it is they are viewing.

That these men and women give of their spare time to this work of selection seems to indicate that the amateur shows and the material submitted, have some definite value, for so many of the jury must view films after films, day after day. And equally cordial appreciation is due the loyal "staff," which of necessity is increasing in numbers as the years pass.

Effride Boerner, Musician

No small part of the enjoyment derived by the audiences is because of the genius displayed by Effride Boerner in selecting the music to be background or accompaniment to the various films. Not only does she have an unusual knowledge and appreciation of music, and its suitability for the purpose, but she has also a remarkable knowledge of what music is available on discs, for unlike the big studios of Hollywood, reliance must be on this source. However, Mr. Little sometimes dreams that he might be able to put at her disposal a good orchestra, that she could do the job as she would wish. Then they would have accompaniments to bring forth comment!

One man, well-versed in film lore, who was present on April 3, was astounded when told that it was not a "reel track" to which he had been listening, and said that he could not see how certain changes could be so smoothly handled "even with a dual turn table," but admitted possibilities that he had not thought of, when shown a "triple turn-table."

Likewise, the projectionists deserve a word or two of praise. For example, these times during the show on April 2, were breaks in the film—breaks due to poor splices—but no one in the audience of well over six hundred, knew it save two, and they were members of the staff with ears so accustomed to the sound of the projector that they caught the fact each time.

Storm Breaks

And each time the take-up was corrected by hand, and the matter rectified after the show, with no disturbance to the apparent smoothness of the performance.

Certainly, the staff must receive great credit, and for the time they devote also, and now for the show itself.

Just about the time when the audience should be assembling, came a storm, a veritable deluge, with thunder, lightning and hail—had five or six inches deep in places. Traffic in New York immediately slowed down, slowed to a crawl. One member of the staff, coming by taxi, was held on Fifth Avenue between Forty-ninth and Fifthth street, through five changes of traffic lights, caused by the vast number of cars and taxis desiring to turn west into Fifthth street, evidently with persons wishing to go to the Music Hall, where "Rebecca" was the picture.

Therefore there was a "delayed curtain."

Too many persons had bought tickets and wanted to see the whole show, and

(Continued in Page 254)



Plaque presented by Mr. and Mrs. Little to the producers of the selected films.

Kodachrome Filming Presents More Problems

By CLAUDE W. CADARETTE,
Founder Los Angeles 8mm. Club

THE introduction of Kodachrome for the motion picture cameras brought renewed interest in photography and increased the enthusiasm of amateur filers, but it likewise introduced more problems that had to be overcome for good screen results.

Although the color process was as simple as possible, requiring no extra gadgets on the camera, the problems of composition and exposure reared their ugly heads. These conditions were not due to Kodachrome film, but arose because the filers were new dealing with color.

A camera that has been set up for good composition when using black and white or panchromatic film may present a picture which is all out of balance if it were filmed with Kodachrome. Likewise, a picture of meaningless tonal values in black and white can become a beautiful scene if color film is used.

The other problem of exposure is not as complicated as composition, but requires more attention than when you use panchromatic emulsions.

Latitude in a film is the amount of correction it can stand in processing for improper exposure. Motion picture panchromatic film has a wide latitude, that is, if an incorrect exposure of one full stop is made, the film will be given the proper exposure in processing to correct the error. The developing agents can restore an incorrect exposure to a normal exposure.

Correct Exposure, Color True

Beyond one stop of correct exposure, the film will show signs of the error, although it may still be usable film. In Kodachrome film, there is no possibility of obtaining these corrections through

processing, as the exposure affects the color in the film, and cannot control the dye colors.

When correct exposure had been made, the colors are true to life, but incorrect exposure turns these colors darker or lighter and there is no method that has been developed to correct this condition. Consequently, for true rendition of color in Kodachrome photography, your exposure must be correct.

Color can be divided into two classifications. One class can include the blues, greens and blue-greens, and be properly named as the COOL colors. We can associate these colors with objects of Nature to portray their significance. Cool water is blue, green grass suggest coolness to us and we also describe ice as blue.

The second classification, or WARM colors, contain the yellows, oranges, and reds. Fire, sunsets or even your red flannels give you a feeling of warmth or comfort. These warmer colors always appear more vivid to our eye and their

Ernest (Hop) Depew Passes

Ernest B. (Hop) Depew, veteran cameraman and member of the board of directors of International Photographers, died at California Lutheran Hospital April 11 from a heart attack. He had collapsed the day before on the set of "No Exit" at Universal Studio, where he was an operative cameraman, and was rushed to the hospital.

He was fifty-two years old and practically all his adult life had been around a camera. He is survived by a widow and daughter. Funeral services were held at the Little Church of the Flowers

parsonage always commands our attention.

If you had a large conditioned painted blue before you, with a small circle of green painted in it, your eye would see the circle but would soon wander over the rest of the cardboard and would not return to the circle homely. Replace the green circle with a yellow circle, and your eye is attracted to it immediately.

Your gaze will constantly return to the yellow circle. Keeping this in mind, we must carefully plan our color shots so that inconspicuous articles of a warm color will not attract the eye and keep it from viewing the center of interest in the picture.

Vintages to Avoid

The most prominent mistake made by amateur filers while shooting color film is their desire to film brilliant colors instead of the softer tints and shades. If warm colors appear in the scene, keep your action as close as possible to these colors and frame your picture with the cooler shades.

What happens when a red object appears in the lower left hand corner of the screen? According to the rules of composition, we know that the eye first looks into this corner of the picture and then travels upward and over the top of the screen.

The red object in the lower corner catches the eye and holds its attention. The eye may leave it to scan the picture temporarily, but it returns to the warm color and the action of the scene may be missed. But if we place a green object in the lower corner and a red object at the center of interest, the warm color catches the eye at the action point because the green object did not command its attention.

This indeed may be an extreme example of color composition. However, the essence of it should warn us that the placement of colored objects in a scene is an important factor in color composition. In action, the darker, green foregrounds composed of trees, forces our attention to the lighter shades in the background.

Vividly colored foregrounds attract your eye and creates an improper balance in the picture.

Kodachrome is a natural color film, and it is important that we keep our colors natural. When filming the family, resort or attire of tents and soft shades rather than the brilliant robes as found in Spanish costumes. The picture will be more pleasing and flattering.

Kodachrome Hours

Daylight Kodachrome has the same light sensitivity as panchromatic film. This speed allows you to shoot under adverse light conditions, yet retain full color pictures. The shooting period for Kodachrome during the day lies between 10 a.m. and 3 p.m. for best color values.

Before or after these hours, the sun penetrates more haze, which acts as a filter, and changes the color of the sun-

(Continued on Page 222)

THEY TAKE THEM ALL IN THEIR STRIDE

DIFFICULT, unusual, routine—no matter what the shot requires, one of the three Eastman negative films will more than fill the bill. Special ability backed by unvarying uniformity has made them the mainstay of modern cameramen. Eastman Kodak Co., Rochester, N. Y.

J. E. BRULATOUR, INC., *Distributors*

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PLUS-X

for general studio use

SUPER-XX

for all difficult shots

BACKGROUND-X

for backgrounds and general exterior work

EASTMAN NEGATIVE FILMS

DAILY PAPER GIVES OVER HALF SPACE TO PHOTOS

THE photo department of PM, New York's fast-moving daily, newspaper scheduled to appear in June with more than half its space devoted to photographs and newspaper art, announces that it intends to "let's-see what-you-have" welcome to the amateur photographers of America.

Through its photo editor, William T. McEwen, formerly of the Life magazine staff, PM's photo department, which will include some of America's outstanding photographers, gives the following message to the amateur photographers of America:

"PM's entrance into the New York newspaper field ought to be of interest to amateur photographers for two reasons.

"First, PM will carry a large number of exciting pictures and will obtain better-than-usual quality from them through an improved method of printing. The amateur interested in improving his technique, and the amateur merely interested in getting an eye-ful of exciting pictures every day, will find PM a satisfying newspaper.

"Second, PM represents a new market for the amateur photographer who wishes to have his eyes open and his camera loaded, and is on the spot when some thing violent happens to somebody important.

"PM will not carry amateur pictures" as such. PM will carry newspaper pictures. When the amateur gets a picture printed in PM, he can be sure that he has done a professional piece of work.

We hope that the thousands of Sunday photographers in America—especially those in and around New York—will

give a first look at their Grade A newspaper pictures.

"You probably don't know exactly what we mean by newspaper pictures, because the word means different things to different people. Your best understanding of PM's picture philosophy will come from reading it and studying its pictures, but we will give you a working definition.

"If you show a picture to a friend (not too generous a friend) and he says: 'Go what' you may have a newspaper picture. If he merely says, 'Hi-mum,' or 'Well, well,' it probably isn't a newspaper picture.

"The fact that you raked your neck to get a certain picture doesn't mean that the picture is newsworthy. As a matter of fact the best newspaper picture will fall in your lap.

"If you get a picture that looks like no picture you ever saw in your life, or if it involves a circumstance or event which has never happened before and will never happen again, it may be a newspaper picture.

"If it involves the kind of people whose pictures appear in the newspapers, but show them in an entirely different situation or against an incredibly unfamiliar background, it may be a newspaper picture.

"Often you will have to trust your own visual memory. If you are a good amateur, you have seen a lot of pictures. You will know whether your picture has that too-familiar look. Some of the 'best' pictures, artistically and technically, have been seen so often that they lack that quality of unexpectedness which a newspaper must have.

"Suppose we leave the thing this way: We will do our best to produce a news-

paper that you, because you like and respect pictures, will enjoy. Maybe you will like PM so well that you will feel obligated to give us the benefit of any tremendous picture scoops that happen to fall in your lap. You won't send dull pictures to us, and we won't print dull pictures from somebody else.

"O K."

The striking departure in its field will carry on advertising in its pages. It will be sparser than existing tabloids and will be thirty-two pages in content at all times.

Philadelphia Cinema Club

"The Right and Wrong Way of Movie-making" was the subject of an interesting and informative lecture and demonstration illustrated with lantern slides, given by Fellow Member John D. Benson, Jr., at the regular meeting of the Philadelphia Cinema Club, Tuesday evening, April 2.

Mr. Benson, experienced in the making of professional films, movies, gave the club some excellent pointers in composition, showing by way of lantern slide drawings how to plan the composition in the view finder. Each rule presented was followed with a slide showing a fine piece of photographic work in outdoor scenes or portrait or still life to illustrate the rule under discussion.

He also covered the subject of lighting in the same constructive way, exemplifying each rule with a photographic illustration. A "free for all" discussion followed, in which a member asked how to further illustrate his interesting talk by using a live model with an imaginary scene and imaginary camera and lighting. This he very willingly did to the enjoyment and profit of all present.

William Brink, another member, pleased his audience by showing his 200-foot 16mm Kodachrome titled "Colorado." It was beautifully done and Mr. Brink received many rounds of applause for the excellence of his picture and for the many well-chosen vintage prints of his setup.

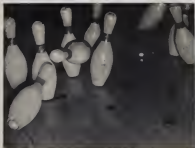
The high spot of the evening, from a comedy standpoint, came with the showing of a 144-foot black and white 16mm film made by Club Secretary George Pittman. This hot but humorous bit of photography might well be called "The Lion and the Mouse." The two principal characters (and only ones) consisted of a very large and handsome house cat and a very, very small white mouse. The picture recorded the unusual friendship of the cat and the very pronounced curiosity of the little white mouse, much to the amusement of the club members. The writer didn't know cats could behave like that—will some one please page Mr. Riple.² R. E. MOORE



"Petticoat" Argus Model C. 16mm., lens 1 inch, 1/100 at F 11, 1/100 s.s., DeSloper, D-7c, without Hyper-Quinone, at Deane's Park, for 50 sec.

Projectionist Amateurs Hold Salon

By PAUL R. CRAMER



WELL, here we are after three months of preparation. Weeks of looking for the correct subject, exposing negatives, hours, even days, in the darkroom hovering over the developing tank like a mother hen with a new brood, unworldly of the wife's plea to come to dinner or breakfast or bed; then to the enlarger, either yours or your neighbor's. Ah, at last, a print to your bloom, and what a honey this time.

We fellows who were unable to turn in Action shots for this salon certainly know that we have our work cut out for us for the next one, after seeing what has been done by Fred L. Bosch, Howard Edgar, Jimmy Phillips, Donald Long, Lee Lander, Bert Vaughn, H. K. Reynolds and Edwin McQuinn.

The winning picture, "The Strike," by Ford L. Borch, is a thing of beauty when it comes to action shots. Fred, as you know, is a 'one shot' guy. He goes out with one negative and one flashbulb, and comes back with a beautiful negative. How are you going to beat him like that?

The second unit, *Charging Pat*

turns," by Howard Edgar, is a masterpiece among seascapes. Of course, Howard lives at Hermosa Beach, and has, in my opinion, dozens of gifts that would give the one he turned in a good run for the money, but this one was his pet, and as you can see a beauty. It will be found on the matching page.

The third poem, "Tuna," by Jeremy Phillips, has a combination of eye appeal, craftsmanship and pathos. Knowing that pup and Jeremy, I knew that that dog just didn't get up and jump over the fence without a little coaxing . . . not that dog.

Popular Award "Cloud Buster," by W. K. Laidley, was a hard picture to get, between the fast moving horses, the crowds and the dust, but the resulting picture was well worth his effort.

At our April 4 meeting Ralph H. Hayden of the Eastman Kodak Stores Inc. gave the members present a talk on Kodachrome Transparencies that was not only educational but gave the members a new field in which to work. The explanation made it all so simple that it is small wonder it is catching on like wildfire.

"Strika," Type Model 112B, New Soviet
new F.2, 100mm, Eastern Super A.V.
100mm, 1/500 sec, F.2.2, 100mm
Super-Flash, 1 No. 2 Hushush PhotoFlash,
100mm No. 20 Developer, 11 mm. of 55
100mm Film.

Fred Schaefer had a few transparencies on exhibition for the group, and after looking them over the boys from Long Beach promptly asked that a special classification be made for these prints. There will be a special order of business at our next meeting, I assume.

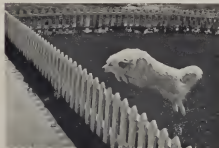
Mr. Hayden has turned over to me for printing a very thorough analysis of the Kodachrome Transparencies for the amateur photographer, in a language that we can all understand. We would like to hear from some of the readers as to whether to print that in installments or just to send each member a mimeographed copy [It will be printed next month each here in its entirety.—Ed.]

The next meeting of the Southern California Projectors Amateur Camera Club will be held at the same Original Taurine Villa Cafe, 627 South La Brea Avenue, Tuesday, May 5, at 11 a.m. (Note change of time), when we will have a speaker from one of the film manufacturers to discuss speed of film in relation to speed of lens, quite a subject and a very interesting one, too.

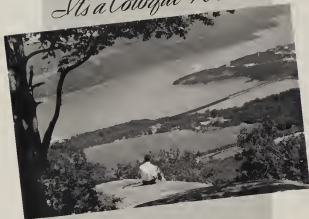
The May Salon will be held at the same Los Angeles Camera Exchange State No. 2 at 176 North La Brea Avenue under the guiding hand of Mr. Welch.

Do not forget to have your pictures of Children's ready for the coming Sales May 18 to 20. They may be delivered to the office of this magazine as if more convenient bring them with you to the meeting on May 9. Each entry must be accompanied by a glossy print at least 2 by 3, to be used for the publication of the picture.

Time: 7. Estimated Down Sea Twenty, from
Eastern 43, 1 200 mi. at E. 2s, 11 10
a.m. Developer, DA 20 Defender, what
on Sam, 43.



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roll, \$8.50; 50-ft. roll, \$4.75; 25-ft. magazine, \$4.50.
8 mm. Ciné-Kodak Kodachrome Film 25-ft. roll, \$5.49.

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EASTMAN KODAK COMPANY, ROCHESTER, N. Y.

Sparkuhl Builds 35mm. Developer for Home Laboratory

By WILLIAM STULL,
A.S.C.

WHEN a cinematographer installs a photographic laboratory in his home it's hardly news—unless the lab is equipped to process 35mm motion picture film by the latest machine development methods! That is what Theodor Sparkuhl, A.S.C., has done. What's more, the compact developing machine is of his own design and construction—the product of his home workshop.

Cinematographer Sparkuhl is one of the more directors of photography who like to take photography home from the studio, either as a relaxing hobby or as a means of conducting photographic experiments which cannot be carried out in the rush of studio production. With Sparkuhl both purposes hold good.

And as he wished to make some of his experiments with 35mm motion pictures, under a set-up which would closely parallel actual studio conditions, and to be able to modify developing times, methods, solutions and printing to an extent virtually impossible if the tests were to go through any commercial processing plant, he decided to install a modern developing machine. Since he enjoys building machinery of all types he decided to build his own.

Compact Unit

The starting point was a room, formerly used as a "cell" darkroom, over his garage. It was about nine by fifteen feet in size, quite ample for a satisfactory experimental laboratory if the layout and machinery were carefully planned. The developing machine has been built across one end of this room, behind a light-tight partition.

Theodor Sparkuhl, A.S.C., and the developing machine he built for his home laboratory.

Exclusive of the drying compartment the machine occupies a space less than eight feet square! Yet it has ample capacity for all ordinary needs, and has a remarkable flexibility of control. Either negative or positive film may be processed interchangeably, and the developing time may be varied between two and twenty minutes. Operating at an intermediate speed which gives a normal nine-minute developing time, the machine has a capacity of 700 feet of negative an hour.

Everything is painstakingly planned to permit one-man operation. All controls are grouped in positions where they can be easily reached from the feed end, while a large automobile-type speedometer provides an easily read indication of the machine's speed.

The device is naturally of the single-

strand type, with separate tanks for negative and positive developers. The two developer tanks, together with one enclosing an elevator at the feed end, are built as a unit. The trays and wash tanks are built as a similar unit.

Interchangeable Tankage

These tanks are easily removable, and may be replaced with additional tanks to permit any type of film-testing operations.

The film moving assembly is supported by a metal frame on one side of the device, and a counterweighted hoist permits lifting the mechanism clear of the tanks. The counterweights are fully enclosed to prevent accidental fouling of their lines in the cramped space.

A deckboarded false floor has been built above the actual floor of the room, to permit installation of the necessary circulation and drainage system.

At the left side of the machine this false flooring also has a compartment which houses the driving and speed control mechanism. A method housepower electric motor supplies the power; while this seems very small for the load involved, the gear ratios are so low that there is ample power.

Belt and chain drive is employed, with a minimum of gearing. A variable ratio belt transmission provides for alteration of the machine's speed and the developing time. The final drive to the film moving rollers is by belt, to the upper rollers. This Sparkuhl has found provides just enough slippage to safeguard the film strand in the event of any binding or mishap.

Air and Temperature Control

The several hundred rollers themselves are of wood and plastic, each turned out by hand in Sparkuhl's own workshop. They are recessed so that either 35mm or 16mm film may be handled interchangeably.

Leaving the wet end of the machine, the film strand makes a right-angle turn and passes through a light trapped tube in the wall to the drying compartment, which is situated in the outer room. This





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Type T-1 for full
details in Type T-1



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details in Type T-2



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Type T-4 for full
details in Type T-4



BABY K&D LITE
1000-2500 watts
Steel, 1 1/2" x 3 1/2" x 10 1/2"
of all sizes. See
Type T-1 for full
details in Type T-1

drying compartment is of conventional type, and the take-up is arranged to handle a 2000-foot roll of film.

Sparkuhl has solved the problems of ventilation, air-conditioning and solution temperature control ingeniously. Obvi-

ously, for a small installation like this, elaborate temperature conditions would be impossible; at the same time, for accurate work, some such control is needed.

Air and Temperature Control

Temperature control is supplied by serpentine shaped piping inside the tanks, through which heated or cold water may be circulated. Ventilation is provided by a large air intake duct and a smaller outlet duct made of stove pipes, with electric fans to furnish air pressure.

Builds Own Printer

In hot weather, a black of ice may be placed in front of the intake fan to provide a cool air intake. In tests made on a day when the external temperature was in the middle eighties, Sparkuhl found it possible to keep the temperature of his developing machine room below 80 degrees.

Sparkuhl has equipped his home lab-

oratory with no less than two printers, both of which are capable of printing either sound or picture. One, a Duplex step printer, he assigned from the record at the studio. He proudly exhibits a roll of side from the Paramount Studio,



(At left)
Left side of Sparkuhl's home developing machine. Vertical shaft transmits power to the machine (main motor and variable-rate transmission under flow Valve automobile speedometer) on wall used to indicate developing speed.



(At right)
Film moving assembly of Sparkuhl's home-made developing machine, horizontal shaft of the axle.

conveying it to him for the nominal sum of one dollar. But he prudently avoids making any added charge for the many hours of his own time spent in overhauling the device and putting it in better-than-new condition.

In addition, he has just completed a second printer, of the continuous type. This again is built from discarded parts salvaged from the studio scrap-heap: the large master sprocket, for instance, came from a discarded film-numbering machine. The aperture is fitted with a four-roller pressure plate which gives remarkably excellent registration.

Printing-light control in this home-built printer is effected by an adjustable mask which permits varying the height of the printing aperture from full-frame size to the narrow slit. Light changes are made manually, and a small lever riding the edge of the film flashes a tiny red telltale light to indicate the needles working each change in density.

The light source used in this compact little printer is a 6-volt automobile head-light globe, powered by direct current from the rectifier used for the sound installation in Sparkuhl's living room projection theatre. The lamp current is of course controlled by a rheostat, and such is the brilliance available that there is ample illumination even for painting on the show, fine-grain positives which normally requires the use of a high intensity mercury arc.

Studios in Miniature

Completion of this laboratory gives Sparkuhl a complete home studio. Like many another cinematographer whose experience dates back to the silent picture days, when every cinematographer owned his own camera, Sparkuhl has his own—a Du-Lite which he still maintains in excellent condition in spite of its "long vacation from studio activity."

With it he can film any tests he wants to make, then he can—unaided—process his own negative, make his own prints, and finally project his picture in his own living room, all without leaving the house!

If you get him down to the matter, he will admit that in addition to the fact he wanted a chance to make tests and experiments which could not always be carried on under the commercial routine of modern studio operation, he has built this unique home laboratory because he enjoys building useful things with his own hands.

When one considers that the entire project was carried out virtually single-handed, and in the rare moments of "between-pictures" relaxation an amateur cinematographer can match, the achievement becomes truly remarkable.

Besides, if he had purchased all his equipment commercially, it would have involved at least a generous five-figure investment. Building it all himself, Sparkuhl got his entire laboratory for slightly over \$250, with many months of fun thrown in.

By no means a bad investment!

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Ampro Issues Catalogue of 8mm. and 16mm. Equipment

The Ampro Corporation, 2809 North Western Avenue, Chicago, has issued "Projection Case Equipment," covering the products of its factory. One of its featured items is Ampro's 8mm. home movie projector.

In the 16mm. division there are twenty-one fundamental features of its projectors. Then there are individual additional features of the silent and sound motion picture projectors, the Ten Purpose Public Address System, and accessories used in connection with its 8mm. and 16mm. equipment.

A page is devoted to the Craig Photo-Editor. A separate publication gives the entire list of silent and sound-on-film 8mm. and 16mm. projectors with associated accessory equipment.

New Burleigh Brooks Catalog

A new 32-page illustrated catalog has just been issued by Burleigh Brooks, Inc. This catalog contains illustrations and descriptions of all cameras, enlargers, accessories, etc., including complete information on many recent American-made additions to the Bellows Bellows Photographic Co. obtain a copy of this catalog by writing Burleigh Brooks, Inc., 128 West 42nd Street, New York.

Kodachrome Filming Presents Problems

(Continued from Page 201)

light. This change likewise alters the color in the film. As the sun begins to dip toward the horizon you will notice a slight yellow cast in it which later increases into the orange and red rays.

This colored cast is reflected by the objects you are filming and result in a picture predominant in yellow and red. Filters have been introduced to correct this so that the Kodachrome filming hours are lengthened.

If you are filming portraits of people, more pleasing results are achieved by placing them in full shade. The downward rays of a high noon sun form dark pockets at the eyes and accentuate the cheekbones. The glare of light causes a squaring of the nose, forming sharp lines in the face.

In open shade, naturalness of expression and relief from the intense light will give you better portraits without affecting the color values. This also enables you to film at a larger diaphragm open-

Subject	Direct Sunlight	Hazy Sunlight	Cloudy	Bright Sun Shady Locations
Light colored subjects	f 11.	f 8	f 5.6	f 3.5
Dark colored subjects	f 8	f 5.6	f 3.5	f 2.8
Side light subjects	f 8.6	f 4.5	f 2.8	
Back light subjects	f 3.5	f 2.8		

ing which softens the picture and smooths the skin textures.

Should your light values in the shade be too low, use silvered reflectors to cast the sunlight into the scene. Do not use gold reflectors, as these will reflect only yellow rays of sunlight and destroy the proper color value.

Don't Fear Shadows

Scene views do not necessarily require day lighting. The old theory of filming color with fast light, allowing the colors to make the contrast, is out of date and in some cases not advisable. Forget the location of the sun. Shoot against it or sideways. You will have to open the diaphragm to compensate for the shadows, but do not be afraid of shadows and they lend interest to the picture.

We see shadows in every scene we

look at, and your subjects will stand out in relief from the background if your light source is behind them somewhat. This back lighting of your subject suggests a three dimensional effect. Lighten the faces with a reflector, if necessary.

It is the opinion of the writer that better portraits are filmed in shadows rather than full sunlight, largely due to the softer hues and shades which are more prevalent. Full sunlight creates such an extreme contrast that shadow detail is lost and the full color scale is lacking.

In many cases, it is necessary to open the diaphragm on a sunny day to expose for the shadows, whereas the same scene can be filmed at a smaller opening when the sky is overcast. With overcast skies, the light is dispersed in all directions, eliminating the extreme contrast and strengthens the light in shadowed areas.

As exposure of Kodachrome must be very accurate to maintain the proper rendition of color, a careful analysis of the subject must be made. If the subject or scene is light colored, the exposure must be decreased by closing the diaphragm, in like manner the exposure of dark colored subjects must be increased slightly.

The basic exposure table as shown will give good results on both bright or overcast days. If you use a meter you can check your readings somewhat with the above table.

The question often arises as to the permanency of Kodachrome film and its ability to retain its original color. While it is true that the first rolls of Kodachrome that were placed on the market have faded a great deal and lost the original color lustre, the improvements in processing have greatly lengthened the ability of the film to retain its original color.

It must be conceded however, that any article or substance which contains color will always fade, whether it is clothing, paint, paper or females. It is therefore not unreasonable for anyone to expect a certain loss of color in their Kodachrome film.

This is not the fault of the film or the manufacturer's method in its production, but entirely due to the fact that you are using color, and, with this in mind, your film will fade regardless of your utmost ability to give it the best care.

The fading of color seems to affect the blue end of the spectrum first, rendering these colors whiter, which in turn makes the redder colors more prominent.

But in view of all the problems that Kodachrome filming presents, it is a valuable means of recording those incidents that occur which you will treasure in later years.

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Bell & Howell's new 3-inch f2 long distance projector lens.



Bell & Howell Issues Fast

New 3-inch F2 Distance Lens

One of the unobtainable fastest to be considered in "shortening" motion pictures from a considerable distance is the decreased picture brilliancy due to the small lens apertures which heretofore have been necessary in order to obtain sharp pictures on distant screens.

With the introduction of a new, fast, long-distance projection lens, which permits a great amount of light, Bell & Howell claims to have surmounted this deficiency to a remarkable degree, still maintaining the fine definition and sharpness which characterized the slower, previous model of this lens.

The new 3-inch F2 extra-lens projection lens transmits a full 32 per cent more light than its predecessor, and approaches very closely the speed of the brilliant 2-inch F1.5 lens which is standard on most 16mm projectors.

The new 3-inch lens will show the same size picture at a distance of 18 feet that the standard 2-inch lens will throw at 32 feet, just filling a seven six feet wide. Other distances and picture sizes are in the same proportion.

Two Kodachrome Adapters Announced by Eastman Co.

Two new Kodachrome adapters, to accommodate 16mm Kodachrome film for use in popular 4 1/2 by 6mm and 8 by 12mm combination sheet film and plate cameras, are announced from Rochester by Eastman Kodak.

The new adapters make it possible for the owner of a Kodak Brownie 16 or 33, or other sheet film camera with similar fittings, to utilize Kodachrome film in the standard 16mm exposures. The facilities of the double extension sheet film

camera, in conjunction with translucent Kodachrome or black-and-white film, thus open up an interesting range of new photographic possibilities—including portraits, nature study in color, extreme closeups in color of minute subjects, table-top work, copying in color, and full-color photomicrography.

New Kodascope Eight

Taking 400-foot reels of 28mm. home movie film, a new model of the finest Eastman 8mm projector is announced from Rochester.

The new Kodascope Eight, Model 70-A, incorporates all the features which the de luxe Kodascope Eight, Model 70, offers. It differs, however, in having a somewhat higher base and longer reel arms, to accommodate the larger reel. Use of the 400-foot reel adds to the en-

joyment of home movie shows, since the number of "stops" for reel-changing can be cut in half.

Price of the Kodascope Eight, Model 70-A, with F1.6 lens but without lamp or carrying case, is \$79. The carrying case is priced at \$10.

New Kodaslide Developments

Two new developments in the Kodaslide projector field are announced by Eastman. A slide carrier, similar to that for the Kodaslide projector, Model 2, is now available for the Kodaslide Projector Model 1. It accepts both Kodaslide and 2 by 2-inch glass slides, and is priced at \$1.35.

A model of the Kodaslide Projector, Model 2, for use on 6-volt current, also is now available as special order through Kodak dealers.

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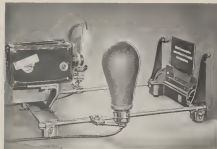
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Using 112 exposure magazine on new Bell & Howell 161 camera.

Problem of Centering Titles Is Solved by Bell & Howell

Newest accessory offered by the Bell & Howell Company is the 16mm. Film Title Taker, which will fit Films 141, 74 and

161. Cameras without the use of separate, hole adapters. Rigid and compact, new are used to characterize the new tool, and special provision is made of a clever arrangement which permits titles to be centered accurately through the viewfinder of each camera. Bell & Howell states that this "visual centering" feature off-center titles are a thing of the past.

The taker consists of a camera carriage, a title-card carriage, and two angled reflectors, each that sliding upon a connecting track and clamping firmly in any position. The Film Title Taker can be used in the conventional horizontal position, or it may be set up vertically, as an animation stand or to permit the filming of a title actually being written by a human hand. The reflectors are adjustable and are made to take ordinary No. 1 photo flood lamps.

When set up for normal use the camera is so positioned that the film plane is one foot from the title card. The field covered at this distance has been found best, says B&H, for general lettering and for typewritten titles as well. Even ordinary news print has been so filmed with perfect legibility on the screen.

Automatic focusing is accomplished either by the camera lens itself or by a simple, easily-attached supplementary lens.

Eastman Installs Camera Exposure Aid in All Movies

A new, truly essential exposure guide—furnishing quick data for all Cine-Kodak films, 16mm and 8mm, black-and-white or Kodachrome, indoors or out—will now be a part of each new Cine-Kodak. Eastman announces from Rochester.

The new guide is a neat satisfaction plate with movable dial and rotating grooves for small insert cards—one card for each type of Cine-Kodak film.

The plate and dial, permanently attached to the side of the camera, bear a lens aperture scale, camera speed arrows, and subject classifications—"light," "normal," and "dark." Each individual film card bears the film name and a scale on each side, one referring to outdoor lighting conditions, the other bearing indoor lamp-to-subject distances.

When the camera is loaded with a certain type of Cine Kodak film the card for that film is to be inserted in the exposure guide plate. All necessary exposure information is then readily available. The dial is simply turned until the camera speed arrow points to the prevailing light conditions—and the correct lens aperture may then be read directly for any type of subject.

The new guide can be attached to any present Cine Kodak for \$1 plus shipping costs. For this service, the camera should be left with a Kodak dealer, who will forward it to the proper Eastman branch. The service includes removing the old-type built-in exposure guide and some-plate, furnishing a new sameplate, re-venting a new Cine-Kodak universal guide to the camera, and supplying a complete set of exposure cards, covering all popular types of Cine-Kodak film.

"Flashes from Photopedia"

A bulletin called "Flashes from Photopedia" is mailed periodically to all photopedia owners by United Catalog Publishers, Inc., 239 Fifth Avenue, New York. Included in this bulletin is the latest information to keep the photographic industry informed of price changes, new products, discontinued items, etc., in the form of "Tip-In-Slips." These slips are inserted on the respective pages in Photopedia, the Master Equipment and Materials Guide of the Photographic Industry.

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Some Recent Films

(Continued from Page 214)

tings, ranging from brilliantly lighted ballrooms to lonely country roads at night—an automobile accident. It is consistent photography all the way.

Biscuit Eater

Paramount's "Biscuit Eater" is a singularly touching and beautiful picture. The story is simple, but directed, photographed and acted with the same fidelity and accuracy as that displayed by two of its principal characters, a pointer and a setter. It was truly a pleasure to watch these two work together. Their precision and intelligence and the gratifying way in which Les Tovar, A.S.C., photographed them, leaves a memory not soon forgotten.

The story tells of a boy's love for his dog, the dog, Pecosse, is a biscuit-eater, a hunting dog that has gone bad, so bad, in fact, that he kills his own food. Ultimately he becomes one of the greatest hunting dogs in the country when he is trained by his little owner, played by Billy Lee. The story was filmed in its native locale around Albany, Georgia, the heart of the bad-dog country.

The whole community turned out and cooperated with the location company. Only six Hollywood actors were taken on location, and the small character parts were enacted by the Georgia natives. Little Billy Lee was excellent, and gave a performance that should and will bring him the recognition he merits. Cordell Hickman, a little seven-year-old colored boy, in a "worker." Richard Lane portrays the father of Billy Lee and Helene Milford his mother.

Lester Mathews was the owner of the plantation, and Sawtooth was the father of Cordell Hickman. All gave excellent performances which brings the picture

up in the real entertainment brackets. Too much credit cannot be given to the dog, Pecosse, a magnificent pointer who in his initial screen appearance was a joy to behold. M. D.

Back Benny Rides Again

Jack Benny's radio show comes to the screen almost intact. Lavishly presented, the wider scope of the screen with the addition of outstandingly effective dance numbers by the Merrell Abbot Dancers, and Rochester's matchless presentations round out the show into another hit for both Jack Benny and Mack Sennett, the producer-director. Many of the gags, however, and the manner of presentation remind one too overly much of the radio show to bring forth the hilarious laughter they could.

It is a tip-smarter satire on western life with all the embellishments, gun-slinging, and use of the most chaotic horseback chase ever recorded on the screen. Benny plays himself at an unbeatable best, as does Andy Devine, Phil Harris, and Dennis Day.

Eileen Drew is the very lovely heart interest. William Cornell and Virginia Dale score as her singing sisters. Rochester's numbers, especially his Indian dance, were admirably done, as were his scenes with the ducky-lovely, Theresa Harris, who skillfully makes the most of her appearance.

Highlights of the production were the original and catchy songs by Frank Loesser and Jimmy McHugh. Charles Lang, A.S.C., photographed the many scenes of Manhattan and the West with his usual skill. M. D.

French Without Tears

"French Without Tears" is a thorough ly directing bit of froth which very wisely makes no attempt to solve one of the weighty political or sociological questions confronting the world. Instead, it strives merely to give an hour's light amusement—an almost forgotten art in modern movies.

Produced by Paramount British as (despite a taxpayer's hat of imposing supervisory credits) an evident "quota picture," the film succeeds in being entertaining.

On the technical side of the ledger, "French Without Tears" stands well to the credit of Britain's film technicians. Cinematography is handled very competently by Bernard Knowles, already known in Hollywood as one of England's better directors of photography. The script failed to call for any particular degree of mood in lighting or photographic effects, but Knowles has treated the picture excellently in standard light-comedy manner, retaining a fairly high key throughout. W. S.

Buffalo Amateur Cinema Club

The Amateur Cinema Club of Buffalo recently celebrated its fifth birthday, and now enters its sixth year of photographic activity.

Constantly striving to improve its sub-

standard films, members of the Amateur Cinema Club of Buffalo carefully study the professional motion picture. It is through this medium, the Hollywood product, that photographic and directing techniques are best learned. Several of the organization's members have received national recognition and awards in the field of amateur cinematography. Probably the most outstanding of these is the noted Hiram Percy Marvin Award.

The oldest organized amateur motion picture group in the city, the Amateur Cinema Club now looks forward to further achievements and recognition for Buffalo's non-professional motionmakers.

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Los Angeles 8mm. Club

The meeting of the Los Angeles 8mm. Club was held at the Bell & Howell Auditorium, Hollywood.

Through the courtesy of Winter Inc., local photographic store, each member was given a key. One of the keys distributed will open a cabinet at the Winter store which contains a camera camera. The camera will be a gift to the member whose key will open the cabinet.

Preparations are under way for the first technical meeting to be held in May, which will feature a trip in the manufacturing section of a film line camera and accessory manufacturer.

The remainder of the evening was devoted to the screening of movies in the 80 foot roll content. There were six entire, as follows: "Wahing Wee," by Miss C. M. Tabor, "Daily Daze," by Kaito," by Margaret McGarry, "Death Valley," by Leo Colston, "Grand Canyon," by P. M. Nordbach, "A Day at Santa Anita," by Mr. Johnson, and "A Night at Earl Carroll's," by William Melan.

First prize was won by Leo Colston, second by Miss Tabor and third by P. M. Nordbach.

As an added feature, after the contest, a picture in the city of New York produced by J. F. Hollywood of that city was shown.

LED CALOIA, Secretary

Little's Eleventh Show Opens to Crowd

(Continued from Page 111)

besides there was a surprise for them and it was wished for them to be there and be surprised. So, having about eighty-per-cent of the seats occupied, the show got under way at 8:50, twenty minutes late.

Plaques for "Oscar"

Therefore, at these shows, the contributors of the various films had received only thanks, publicly at the show for those whose films were as the program and privately by letter for the others, with, for the selected films, a leader—simple but sincere. This year Mr. Little had talked with Towner Andrews (Thomas H. H.) his old friend and assistant in many ventures, not all related to films, with the result that he "scripted" a plaque—Hollywood for some years has had its "Oscars," and recently saw they might after. Now the Littles, too, have their own Oscars, and while they do not know how eagerly they will be sought, we do know that it gave their great pleasure, just before the screening began, to make a public presentation, with thanks and hopes for new films in 1941.

A batch of comedy was added by the collapse of the card table upon which the trophies were resting, which easily could have added a major lot of tragedy to the evening, for the plaques were only of plaster, colored—and not of the

bronze that they were meant to simulate. However, no harm was done.

A second nomination then took place. Certificates of honorable mention were awarded to five contributors of films which, while not selected for screening, yet might have been, had not others. In the opinion of the jury, seemed to compare with the rest to produce the better program as a whole.

These honorable mentions were awarded to the following films:

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Carbon Hunt in Newfoundland," by John P. Davenport, "Outcasts of the West," by "Cineclips," "Behind the Border," by William E. Hutchinson, "Tarnished from Yesterday," by Robert R. Crandall, Jr., "Parade in October," by William F. Small. After these ceremonies, the regular program began.

OVERTURE

A GROUP IN BLACK AND WHITE

The First Christmas Gift

Rodolph Bowland
New York

Gold! Gold! Gold! — — — — —

5th Grade, University Training School
Lexington, Ky.

Devotion and photography, Lilian McElroy
When the Cat's Away

8th Grade, Lowell Jr. High School
Long Beach, Calif.

Under the supervision of Helen Ross Clifford
Mexican Silhouette Clement K. Chase
Thorn, Ark.

Indian Hope Track — — — — —
K. Japan
Bendley, India

A GROUP IN COLOR

At Christmas Time Esther Martin
Newark, N. J.

New York World's Fair — — — — —
Ralph W. Sanley
New York

Flaming Carbons — — — — —
"Cineclips"
New York

INTERMISSION—TRY SOMETHING

A SECOND GROUP IN COLOR

Marshaled Mysteries Robert M. Ungard
Chicago, Ill.

Below Zero — — — — —
Duncan MacD Little
New York

Ship Over Board — — — — —
John C. Jay, Jr.
Washington, Mass.

PENALTY

Amateur Improving

Taken all in all, it was not felt that any film of this show quite reached the level of those two shown in 1939—"Consider the Ladies," by Fred Ellis, and "The Polish Wedding," by Tadusz Jankowski, but it was a good show of good films. They were well conceived and well executed, and judging by many of the films not selected amateur films definitely are improving.

Now the Littles look forward to the Twelfth Show in 1941, and hope for a larger number of films from which the jury may select, if possible, even a better program than they have yet been privileged to present.

In closing, Mr. and Mrs. Little ask this magazine to thank the many active amateurs, at home and abroad, who have both this year and in the past shown as interested in and helped with their International Shows of Amateur Motion Pictures.

We hope that these Shows may continue and become of greater and greater value to the amateur producers and of greater and greater interest to the public at large. To this end is asked continued support from all producers by the submission of films, and Mr. and Mrs. Little pledge to them and to their audiences that they will do their utmost to deserve it.

Commercials As They Were and As They Are

(Continued from page 204)

to get the highest prices. For this end, all members of the family, young and old, give their all to their beloved land and precious crop.

Most convincing is the picture story of the influence that tobacco and its profits have held in molding the cultural and industrial development of the Durham region. The audience is impressed with the buildings and facilities offered to students from the forty-eight states and many foreign countries at Duke University—a tobacco endowment.

Their respect for the aroma, scientific attention that is given to the making of a cigarette is increased as they see deft hands and astoundingly human machines carry the tobacco in giant boga-heads, bundles, loose leaves or shredded masses through the factory and warehouse on a journey that takes two years from leaf to cigarette.

While no method of distribution is sold as a counterpart of these real ones they are easily mistaken for the genuine. March of Time subjects passing monthly in theaters throughout the nation. The style, the technique, the photographic quality, the forceful "Voice of Time" punctuated with the dramatic musical score, distinguishes them from other commercials.

Interesting is the announcement by March of Tunes that they have not entered the commercial field in direct competition to the well established commercial producers. Instead they will only make commercials now and then when lack of grunting world events leave the staff enough time to try new ventures.

When March of Time decided to do the Chesterfield job, Louis de Rochemont went to Durham, N. C., along with a script writer to lay the ground work and prepare a working script. As a great portion of the film centered around the life of tobacco growers, it was essential to locate a farm that had ready made settings as well as a photogenic family willing to co-operate.

The Chesterfield buyers who are constantly in touch with tobacco growers were consulted. Little research was necessary in deciding that the one best place to make the picture was on the Dunn Elm farm near Bahamas.

Grandfather Elks had grown tobacco all his life and raised six sons, who have all followed in his footsteps, extending their holdings until the Elks family now own and operate a complete tobacco growing community in which they have raised families, built their own church and made themselves almost self-sustaining with vegetable garden, fruit orchard and livestock.

The house was ideal as a farm home with barn, chicken shed, smoke house, dairy, etc. The tobacco curing barns were perfectly arranged and the grounds cared for as well as the lawn of any

city home. Tobacco raising was a business with the Ellises, and they spared no labor in creating conditions most favorable for raising the best grade.

When I arrived in Durham the work script had been prepared. It was turned over to me and the job was started. George Stoetzel was assigned as assistant cameraman, Phil de Lacy and Jack Hartzell of the March of Time staff were added to assist in contact and leg work.

Getting Acquainted

It was spring, and the planting was in full swing. I moved out to the Ellis farm so as to get better acquainted with the family, their work and home life.

We started in the house with shots of the women preparing a typical Southern meal with fried chicken, ham, corn bread, biscuits, vegetables, peas, yellows and layer cake. Scenes of the large family assembled around this bountiful table followed.

One of our few sound tracks was recorded here as Mr. Elia Senger gave his simple, touching blessing, while the family sat with bowed heads.

Later we made scenes in the smoke house lined with rows of hairs, shoulders and loins. Lighting for all these interiors was done with ten No. 1 Photofloods in light reflectors hung from the ceiling, while two reflectors were moved here and there on the side, close to the subject for rimlight.

The whole *Kila* family was photographic, and it was an easy matter to make effective scenes around the home. We selected different people for various scenes, such as soapmaking, canning vegetables, milking, churning, drawing water, feeding the horses and pigs. Even a mother hen with a brood of chickens played her part. Most of these scenes were routine work, but every advantage was taken to make them pictorial with camera angles and lighting.

The planning sequence was relatively easy, but required some early rising and late work to keep up with the E!s family and at the same time have the scenes authentic, as they rise at three-thirty each morning.

Swirling Lantern Light

One of the first jobs was to build a fire. Soft lighting was used to allow the flame to be visible. We set up lights in the bars to get walking screens and feeding the snakes. Here the light was concentrated from one direction to simulate the lantern light by which they worked.

An opening shot to the sequence was made by shooting upward at a money tree the house darkly silhouetted against the sky. A photoflood placed so as to shine on the window was lighted as the shot was taken. Fortunately, the house was wired with a rural line but we had to run extensions to the barn and other buildings.

Following the "before day" screen, we made silhouette shots as the males were harnessed and the men started out to the fields. A camera position was selected for a general view where a whole barn with open shed on the side and a woodpile stood out clearly against the Eastern sky.

The harness was hanging on a post and a lantern nearby. One small spotlight was placed out of camera range behind the barn. The action was directed so that the men led the mules up from behind the woodpile toward the shed so that their forms were plainly silhouetted against the sky. As they took down the harness the spot caught them to silhouette light coming from the lantern.

In the dark foreground area one of the men carrying a lantern passed toward the barn while the harnessing action was going on. This foreground action registered well, the light from the well cleaned lantern being sufficient.

Using Telephoto

This scene was made about fifteen minutes before sunrise when the sky was light and the objects against it were dead black silhouettes. Several clouds



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